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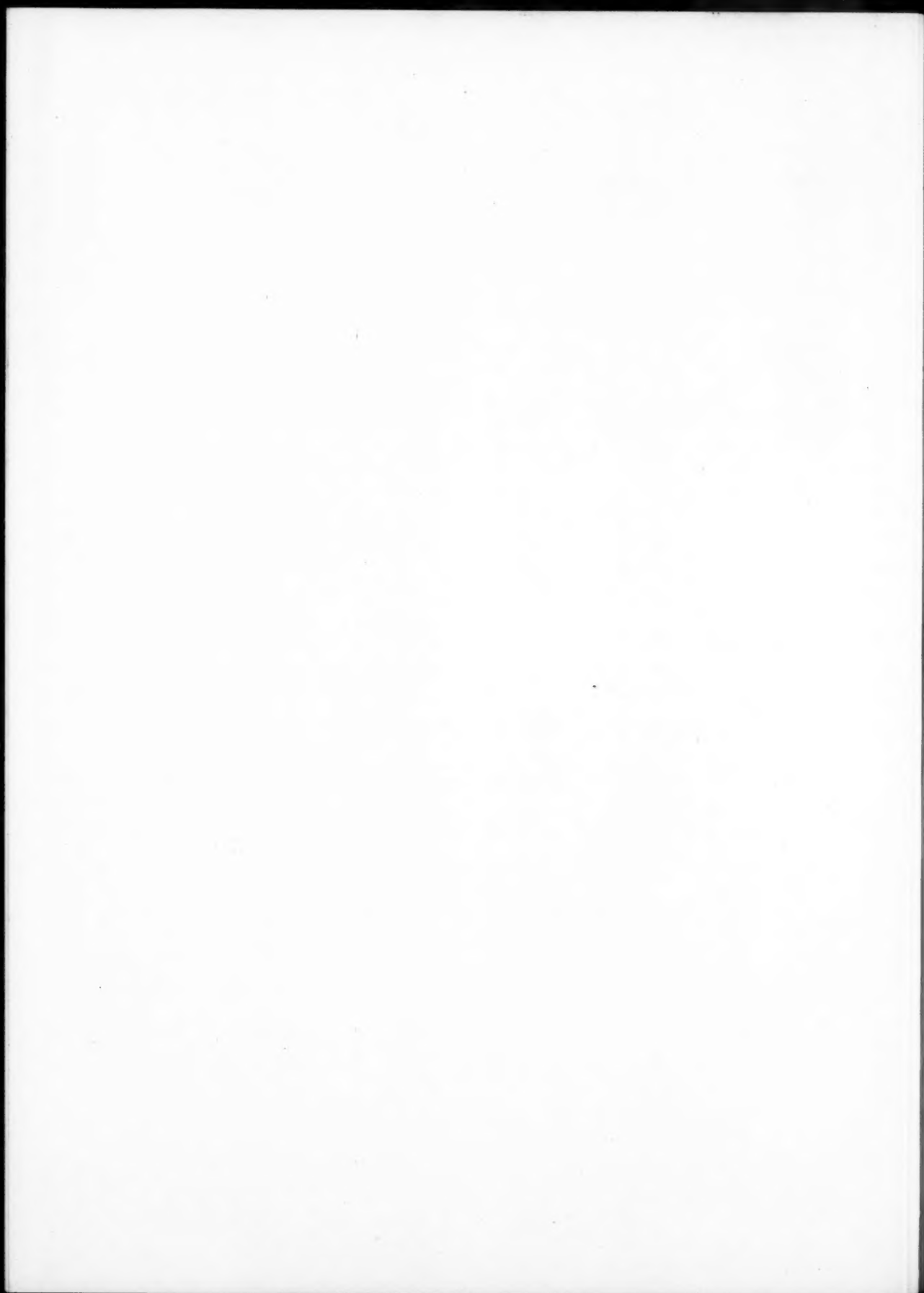


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## ARCHAEOLOGICAL NOTES

### THE AMPHITHEATRE IN CAGLIARI

THE ruins of the Roman amphitheatre in Cagliari (fig. 1), one of the most important monuments left to us from the Roman domination in Sardinia, rise on the slopes of the rocky hill of Buoncammino, within a gorge cut deep between two knolls; the place dominates the western quarters of Cagliari, Stampace and Tuvixeddu, the sea, the lagoons and the strip of land stretching far away towards the peninsula of Sulcis. The site could not have been better chosen: outside the residential part of the town on its northern side, well protected by the surrounding hillocks from the northern and eastern winds, it was situated, nevertheless, just above the most elegant and central quarter of Karalis, which extended along the harbor, from the slopes of Bonaria's hill westward to the last slopes of Tuvixeddu; the little basin-shaped valley permitted cutting from the rock almost two-thirds of the amphitheatre, while only the third toward the sea had to be built up in masonry. Cagliari's amphitheatre belongs, in fact, to the category of monuments which are totally or partially carved in the rock, such as the amphitheatres of Syracuse and Sutri in Italy, those of Patras and Pergamon outside Italy. The existing and accessible specimens of this sort are much rarer than those built in masonry.

Information about the structure to be found in ancient writers is scanty, but not entirely lacking. In the biography of the Sardinian writer, Marcobus from Bosa, who lived in the time of Valerian (254-260 A.D.), we learn that he met in the amphitheatre his future wife Curilla, the daughter of the local patrician Porcius Sertorius, a Roman author who lived in the second half of the fourth century A.D., informs us that another Sardinian writer, Tigellius, living about the end of the Republican age, bought a large estate near the amphitheatre and erected there a sumptuous palace: the topographic item on the amphitheatre refers naturally to Sertorius', and not to Tigellius' time. After some few references to plunderings by the Saracens at the time of their first invasion about the year 740 A.D., we have further confirmation of the existence and the use of the amphitheatre in 777: the consuls celebrated there solemn festivities in honor of the final withdrawal of the invaders. These consisted of a bull-fight, and the meat of the animals was distributed to the populace. New devastations were again wrought in the year 801 A.D. by the Saracens, who furthermore cut the aqueduct and deprived the town of water. After that time our sources are silent until the seventeenth century, when Bonfant, in his book on the "Triumph of the Saints of the Kingdom of Sardinia,"<sup>1</sup> speaking of the donation of a piece of land popularly called the Fountain of Palabanda, names the place "Palabandae et Colisei." The same term "Coliseus in Palabanda" recurs again a little later in the *Propugnaculum Triumphale* of Father Vitale (Milano, 1623). Except for these sporadic references, the ruins seem to have remained entirely forgotten, until they attracted the interest of scholars of Sardinian antiquities in the first half of the last century, among them Count Lamarmora and Canon Giovanni Spano. To the lat-

<sup>1</sup> *Triumpho de los Santos del Regno de Cerdena*, Cagliari, 1635.



FIG. 1.—CAGLIARI, SARDINIA. ROMAN AMPHITHEATRE. GENERAL VIEW FROM THE NORTH

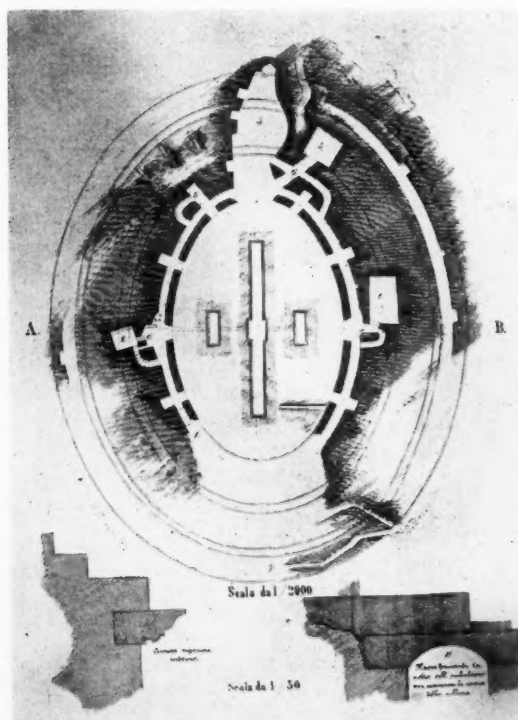


FIG. 2.—PLAN AND ARCHITECTURAL DETAILS BY V. CRESPI, 1887



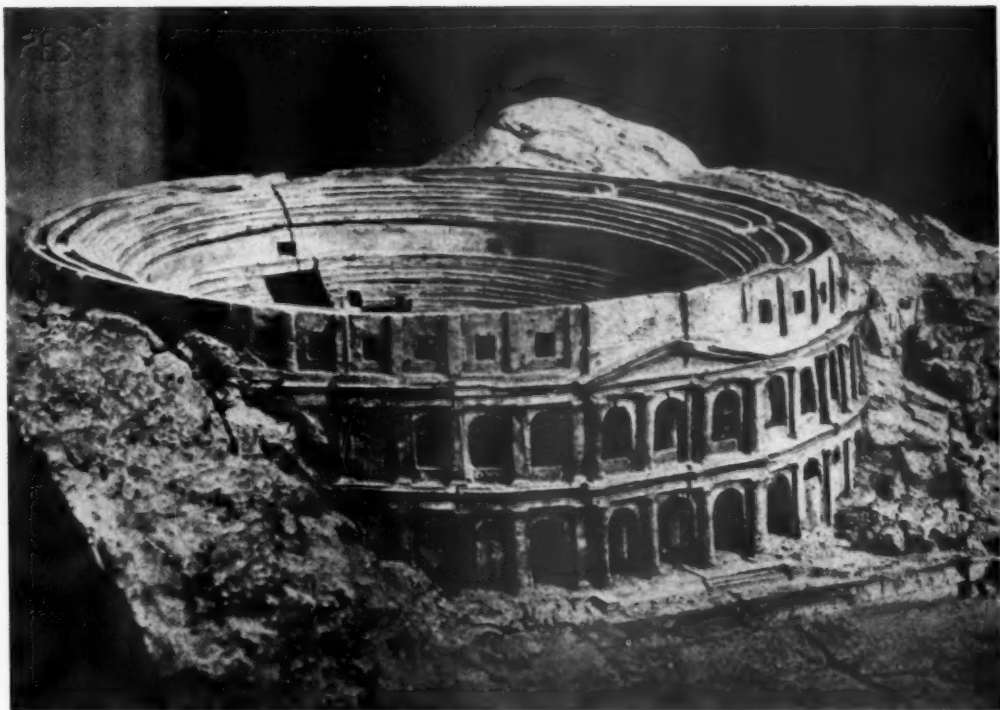


FIG. 4. — PLASTIC MODEL OF THE AMPHITHEATRE, RECONSTRUCTED BY CRESPI



FIG. 6. — RUINS OF THE WESTERN HEMICYCLE



ter's initiative we are indebted for the first, but incomplete, removal of the earth and débris which had filled the whole arena, an undertaking which was carried on at the expense of Cagliari's municipality between 1868 and 1871. To the Canon we owe the first methodical study of the monument. He assumed with great plausibility that the removal of all the precious materials of the amphitheatre—the stone blocks, marble slabs and decorative elements—was due to the architects of the Pisan walls, as well as to the citizens and the feudal servants of Cagliari, when they were obliged to abandon the low quarters and establish themselves in the neighboring Castle. The stripping of the amphitheatre was completed three centuries later in the interest of such important religious enterprises as the erection of the Church and Convent of the Capucines and of St. Michael's Church. According to Spano, however, the closing of rooms and corridors with wooden planks, which were found during the excavation, and the filling up of the arena with débris and rubbish from the town, were ordered

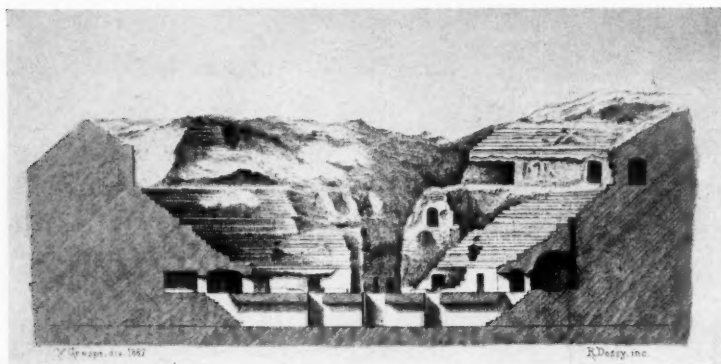


FIG. 3.—CROSS SECTION ALONG THE MINOR AXIS (LINE A-B IN FIG. 2). DRAWN BY V. CRESPI, 1887

by the municipality in later times, during the two centuries preceding his researches: the purpose was perhaps to prevent the spot from becoming a refuge of dangerous criminals and a meeting place of undesirables.

Twenty years after the excavations, the Inspector of the Museum of Cagliari, Vincenzo Crespi, in the hope of collecting funds for the protection of the neglected monument, prepared a monograph, somewhat more accurate and detailed from the architectural point of view than Spano's work. It was published, in a very rare edition at Cagliari in 1888<sup>2</sup> and after that no further attention was paid to the amphitheatre until our day.

We shall use Crespi's plan and section (figs. 2, 3), having in mind also his plastic reconstruction of the ancient building (fig. 4), to give a quick description of it, before describing our recent work and mentioning the principal differences from Crespi's drawings derived from this work.

The oval arena, entirely cut in the rock in the direction northeast-southwest, has axes 46.80 x 31.20 m. and a surface of 1120 square m. The high podium of 3.25 m.

<sup>2</sup> Vincenzo Crespi, *Studi critici e restituzione dell' Anfiteatro romano di Cagliari*, Cagliari, 1880.

separates the *arena* from the first *moenianum* (or the first order of seats). Behind it runs a corridor (figs. 5, 6), for the greatest part excavated in the rock, elsewhere built and covered with a vault; this is composed of two series of blocks, each one forming one-half of the arch and meeting in the middle of the vault (fig. 2, detail 11). Beyond the balustrade at the podium's edge, at a distance of 1.10 m. the large *balteus* rises, that is, the step for the *bisellia*, or *subsellia*, the comfortable seats for illustrious citizens: a minute examination of the cuttings in the rock enabled us to determine exactly the dimensions and the intervals of these seats.

A great part of the *arena* had been filled up again, since the first excavations, with the earth brought in by the violent inundations from Buoncammino, as well as by



FIG. 5. — RUINS OF THE EASTERN HEMICYCLE

sewage intentionally directed to the arena; the sections built in masonry were crumbling more and more, and even some of the thinner and more exposed rock-cut walls were eroded and facing ruin (figs. 5, 7 and 9). To meet this danger, and restore to the monument a decorous appearance, the Archaeological Service of Sardinia in the last few years planned, and carried almost to completion, an elaborate program of works: the full excavation and cleaning of the whole building, its accurate study and drawing, the strengthening of the spots that had deteriorated most, and the restoration of some of the best preserved sections of the amphitheatre. Such restoration includes: the repairing of the collapsed vaults of the corridors; the remaking, following the architectural details still preserved to us, of the ceilings of the underground chambers, for instance, the large room visible on the left of figs. 7 and 9; the completion of the steps in the best preserved sections of the *moeniana*, and the reconstruc-

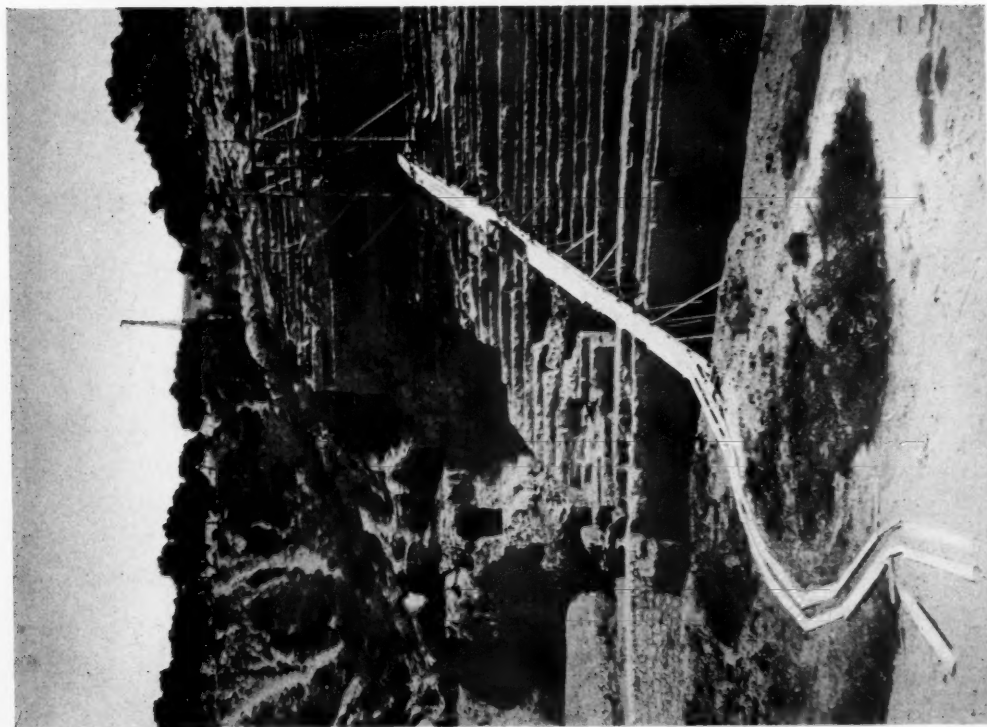


FIG. 7. — LIFTING OF A BLOCK TO ITS ORIGINAL PLACE ON THE CORNICE OF THE  
HIGH PODIUM



FIG. 8. — PART OF THE HIGH PODIUM RESTORED, SHOWING CORNICE BLOCKS SET  
AGAIN WITHIN THEIR SOCKET

tion of some of the staircases. These were cut in the rock in the second section of seats and are still visible in spite of the erosion produced by the water running in streams over them; in the lower section of seats, on the contrary, the staircases were almost entirely built up in masonry (we can observe this clearly in fig. 5). The covering of a deep natural gorge on the northern edge of the long axis (fig. 2) was also contemplated in the final program of the restorations: this would have formed a link between the eastern and western hemicycles.

There was only one principal entrance to the arena for the public, that on the south. On the north, in the narrow gorge cut by the rains, a second large door led only to small rooms which were for keeping wild beasts and storing tools; a series of five such rooms were cut in the west wall and one in the back wall, the latter provided with a drinking trough: the threshold (4.65 m. wide) of this double-door was found, with the holes for the pivots and for the jambs of its four leaves (fig. 10). The gorge was covered by a vault, and we can see quite distinctly on both sides of the rock walls the oblique cuts for the bedding of the masonry.

Behind the ten small entrances from the lower passage into the arena there are ten rooms. These have rings carved on the walls: according to Spano they were made by the peasants to tie their donkeys when Palabanda's mill was working. We notice, however, exactly the same disposition of these rings recurring in all the rooms, in some cases pretty well preserved, one near the door and another on the opposite wall toward the back of the room. We are entitled, therefore, to assume a clever system of opening the doors of the rooms from the outside, with ropes passing through these rings. When opening, the door automatically closed the corridor on the side where the attendant was; on the opposite side the corridor was closed off with a fixed barrier, for the locks of which we notice the holes only on one of the two sides. Obviously the wild beasts rushed toward the arena through the only exit left to them.

At the two ends of the minor axis of the amphitheatre two staircases descend from the passage to the level of three deep ditches, a very long central one between two smaller ones crossing the arena on its long axis: these are not parallel as they are drawn in the plan, but converging. Within these ditches the few preserved architectural elements of the old building were found: the most important among them were several large blocks belonging to the carved cornice above the high podium, of which four pieces were carried up and set again within their original socket (figs. 7, 8).

On the upper surface of these blocks we could observe the regular holes for the insertion of another balustrade: they recurred every two metres, to hold the small pillars of the usual Roman balustrade, which consisted of two elements with the oblique cross bars, each one metre square. As the spectators could sit with their feet on the large blocks of the cornice, we can figure that the steps of the *summa cavea* were seven. On the second step some cuttings suggest the placing of armchairs.

We cannot expatiate here on a number of minute observations, which would require the help of proper illustrations to be fully understood: they refer to the exits and the means of access to the amphitheatre, the staircases, the various rooms, including depositories, lavatories, dressing-rooms and perhaps also mortuary chapels (*libitinae*). Other observations might be made about the foundations of the perimetral walls, which gradually increase in width toward the plain, where they had to





FIG. 9.—SECTOR NORTHEAST OF THE RUINS, AT THE BEGINNING OF THE WORK OF RESTORATION



FIG. 10.—THRESHOLD OF NORTH ENTRANCE, DISCOVERED BY RECENT

support a much heavier amount of masonry, and so on. Many other details will be better understood presumably when the few remains of the lower section of the monument, built of bricks in good masonry, are entirely cleared out and accurately studied.

Such minute observations enabled us finally to solve the difficult and discussed problem of the top of the amphitheatre. Above the seven steps we have noticed a plane surface 1.80 m. wide; farther back a vertical cutting in the rock, for supporting the perimetral wall, which was about 1 m. thick. Along the plane surface, spaces where the rock is left rough, of 1.80 m. in length, alternate with spaces of 2.00 m. where the rock is accurately smoothed. The use of similar devices in other parts of the monument suggests that very probably the upper background of the open portion of the *summa cavea* was completed by a kind of covered porch, with terminal balconies formed by vaulted niches divided by pillars. A similar porch above the open steps of the *summa cavea*, reserved for women and the populace, the *pullati*, is usual in other amphitheatres and appears also in the Coliseum.

When the study and the restoration of the amphitheatre is finally accomplished by the Archaeological Service, Cagliari's Municipality has promised to provide fencing and protection. It will then be possible perhaps to renew the theatrical performances against the background of that most picturesque and suggestive Mediterranean landscape.

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## A GROUP OF COPTIC INCENSE BURNERS

STRZYGOWSKI, in his catalogue of Coptic Art in the Cairo Museum, attempted a classification of Coptic incense burners. He arranged them by the number of chains with which they were made. Pelka<sup>1</sup> later pointed out that it would be better to classify them by shapes rather than by the number of chains. On this basis he found four different groups, mostly urn- or chalice-shaped. To these we may add a fifth, a group designed after animals. The Copts were, to my present knowledge, unique in designing incense burners in the shape of animals. A very fine example made in the form of a horse and now in the Hermitage Museum in Leningrad<sup>2</sup> is an instance of this practice.<sup>3</sup>

Another form that seems to have been particularly popular with the Copts has a box-shaped base resting on claw feet and a cover made like a lion or lioness attacking a wild boar. Seven complete or fragmentary examples of this type have been recorded, two in the Louvre,<sup>4</sup> one from Alexandria now in Karlsruhe,<sup>5</sup> a complete one from Epiphanius in the possession of Mr. J. P. Morgan<sup>6</sup> (fig. 1), a fragment in the Metropolitan Museum of Art<sup>7</sup> (fig. 2), and the base of another from Luxor, now in the Kaiser-Frederick Museum in Berlin.<sup>8</sup> A complete example<sup>9</sup> was found in one of the Royal Tombs at Ballana, along with a variant, shaped like a lion standing on his four feet, not on a box-like base. In addition, an incomplete one, as yet unpublished, is in the Walters Art Gallery<sup>10</sup> (fig. 3).

These eight incense burners, or fragments thereof, appear all to have been made in the same workshop and approximately at the same time. All eight of them not only have the same form, but the modelling of the figures and the style are the same in each instance. They are characterized by a certain heaviness in the rendering of the heads, particularly of the lions' manes, combined with an almost childlike way of executing other details, such as the forelegs of the lions. The objects were suspended by a chain in two parts, fastened on the lion's head and tail. They worked in a very

<sup>1</sup> Otto Pelka, "Koptische Altertümer im Germanischen Nationalmuseum," *Aus den Mitteilungen des Germanischen Nationalmuseum*, Nürnberg, 1906, pp. 14 ff.

<sup>2</sup> M. E. Matié and R. S. Liapounova, *Greco-Roman and Byzantine Egypt: Guide of the Exhibition: State Hermitage*, Leningrad, 1939, pl. 5 (in Russian).

<sup>3</sup> For example, there are no animal-shaped pieces illustrated in Joseph Braun, *Das christliche Altargerät*, Munich, 1932.

<sup>4</sup> L. Bréhier, *La Sculpture et les Arts Mineurs Byzantins*, Paris, 1936, pl. XLV.

<sup>5</sup> Salomon Reinach, *Répertoire de la Statue Grecque et Romaine*, Paris, v, 1924, pt. I, pl. 423, no. 1; A. de Wael, "Ein Orientalisches Incensarium" in *Römische Quartalschrift* 1913, p. 192.

<sup>6</sup> H. E. Winlock, *The Monastery of Epiphanius at Thebes*, New York, 1926, i, p. 95, pl. XXXV. On loan at the Metropolitan Museum of Art.

<sup>7</sup> No. 89.2.551. Winlock, *op. cit.*, p. 95, note 2.

<sup>8</sup> Oskar Wulf, *Altchristliche und mittelalterliche Bildwerke*, Königliche Museum zu Berlin, Berlin, 1909, no. 990, pl. XLVI.

<sup>9</sup> W. B. Emery and L. P. Kirwan, *The Royal Tombs of Ballana and Qustul (Mission Archéologique de Nubie 1929-34, Service des antiquités de l'Égypte)*, Cairo, 1938, pl. 96. Found in Tomb 80. *ILN*, June 24, 1933, p. 922; W. B. Emery in *Ann. du service des antiquités de l'Égypte*, 1923, p. 201. I am indebted to Prof. Mary Swindler for calling my attention to these examples.

<sup>10</sup> No. 54.1674. Acquired as "Babylonian."



FIG. 1.—BRONZE INCENSE BURNER FROM EPIPHANIUS ON LOAN AT THE METROPOLITAN MUSEUM OF ART FROM J. P. MORGAN



FIG. 2.—FRAGMENT OF INCENSE BURNER, METROPOLITAN MUSEUM OF ART



FIG. 3.—FRAGMENT OF INCENSE BURNER, WALTERS ART GALLERY, BALTIMORE



curious way. The Morgan incense burner, on loan at the Metropolitan Museum of Art, which I examined carefully, shows no way of fastening the cover, so that it must have been necessary to swing it from side to side in order to prevent the two sections from sliding apart, or else they were made to be suspended and not swung at all.

Very few Coptic bronzes have been dated. The chronology of the sculpture, on the other hand, has been much better worked out.<sup>11</sup> This is very convenient, because the analogies between the animals on the incense burners and those in sculpture are often fairly close. The modelling of the lion on the finest Louvre example may be compared with that of a wild boar on a relief at Cairo;<sup>12</sup> the wild boar on the Morgan burner with another sculpture in Cairo.<sup>13</sup> The working of the eyes in the bronzes may be compared with that of the eyes of a lion in a relief from Ahnâs in the same museum;<sup>14</sup> the rather peculiar stylized faces as seen from the front with that of a lion above a niche in the Cairo Museum.<sup>15</sup>

These sculptures are in the "hard style," a style that, according to Kitzinger, started in the first half of the fifth century and continued for some time. This is approximately the time when the incense burners were made. An inventory of the Monastery of Epiphanius made in 548 A.D. lists an incense burner there at that time.<sup>16</sup> It is not impossible that the Morgan incense burner is the very one mentioned in this inventory. But of this we cannot be certain. However, the inventory establishes the possibility that the Morgan burner was there as early as the year 548.<sup>17</sup> Comparison of the animals on the incense burners with those found in sculpture was with the "hard style" sculptures of the fifth and early sixth centuries. Hence the bronzes are no earlier than the fifth century. Minor arts generally follow along slightly behind the major arts. Therefore, I suggest that the incense burners were made in the late fifth or early sixth century, a date that fits in with all the available data that I have been able to bring together.

As to the place of origin, it is possible that they were made in a workshop active in the Thebaid. The Morgan example was found in the monastery of Epiphanius. Part of another in Berlin and one in Paris were acquired in Luxor. These three out of the eight seem to indicate that the workshop which produced them flourished in the Thebaid.<sup>18</sup> Thus we have a group of Coptic bronzes that can be localized with a fair amount of certainty and that can be assigned to an approximate date, owing to their relationship with sculpture, for which a chronology has been established with greater success.

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<sup>11</sup> Cf. Ernst Kitzinger, "Notes on Early Coptic Sculpture," *Archaeologia* 87, 1937, pp. 181 ff.

<sup>12</sup> G. Duthuit, *La Sculpture Copte*, Paris, 1931, pl. XXb.

<sup>13</sup> Duthuit, *op. cit.*, pl. XXc.

<sup>14</sup> Duthuit, *op. cit.*, pl. XXIa.

<sup>15</sup> Duthuit, *op. cit.*, pl. XXXVIa.

<sup>16</sup> Winlock, *op. cit.*, p. 95, note 1.

<sup>17</sup> It appears likely that the Nubian tombs are earlier than the mid-sixth century.

<sup>18</sup> The example found in the Nubian tomb was certainly imported.

## SIGNIFICANCE OF THE SERPENTS ON POMPEIAN HOUSE SHRINES

MENTION of domestic religion immediately calls to mind Lares and Penates. But these were not the only gods worshipped at the house shrines. There were others hardly less important, if we judge by the frequency with which their figures occur and the amount of space devoted to them. An examination of the house shrines at Pompeii and Herculaneum—the only sites where monuments of Roman domestic religion are preserved to us in any number—shows serpents to be quite the most conspicuous element in the majority of painted shrines.<sup>1</sup>

For example, in the small atrium of the house at VI, xvi, 15 (fig. 1) the painted lararium<sup>2</sup> covers the greater part of the north wall, and the serpents fill most of that space. Into the wall is set a square niche and on the back wall of this is painted the figure of the Genius sacrificing at an altar. Outside the niche, on each side, is the figure of a Lar. (The photograph shows that the plaster on the right side has now completely fallen away, but the lower portion of the other Lar is still visible). These we think of as the principal deities of the house shrine. Yet the maker of this shrine devoted far the greater part of his space to the two serpents (each about two meters long) which rise one on each side of a special altar. There are three points of particular interest for our present purpose illustrated by this shrine: (1) the position of the serpents, symmetrically arranged facing each other, one on each side of an altar to which they lift their heads; (2) the intention to represent the serpents as a pair, male and female, as is usually the case when two appear together on a shrine;<sup>3</sup> that on the left is slightly larger and has a larger crest and beard—the accepted distinguishing characteristics of the male, as we know from Aelian;<sup>4</sup> (3) the offerings on the altar, consisting of a pine-cone and two eggs.

A second example (fig. 2) shows a shrine with a single serpent. It is taken from the small dwelling behind a taberna with thermopolium.<sup>5</sup> In the upper zone is the familiar scene of the Genius and the Lares, while the lower zone is given over to the serpent. He has a large crest and beard and coils toward a special altar, about to partake of the offering, which again is an egg.

In both the above cases the serpent (or serpents) is represented on the shrine along with other domestic divinities. This is a frequent arrangement, but there are at Pompeii many lararia on which the serpents are the only figures depicted. Fig. 3 shows one of these shrines chosen from the more recent excavations.<sup>6</sup> This pair of serpents exhibits two interesting variations from the others: (1) they do not approach a painted altar, but raise their heads to a tile set into the corner of the room, upon which the worshipper could actually place his offerings; (2) instead of facing

<sup>1</sup> See the descriptions and illustrations of these shrines in my "Corpus of the Lararia of Pompeii," *MAAR*, 14, 1937, hereinafter referred to as *Corpus*. <sup>2</sup> *Corpus*, no. 224.

<sup>3</sup> For clearer examples of this distinction see the shrines reproduced in *Corpus*, pl. 22, 1; 26, 1; 27, 1; 28, 2. <sup>4</sup> *Hist. anim.* xi, 26.

<sup>5</sup> *Corpus*, no. 99.

<sup>6</sup> *Corpus*, no. 56, coming from the kitchen of a house at I, x, 7; cf. similar shrines consisting of the serpents alone, illustrated on pl. 27, 1 and 28, 1 and 2, and numerous other examples listed in the index, p. 103, s.v. *Paintings—serpents alone*.

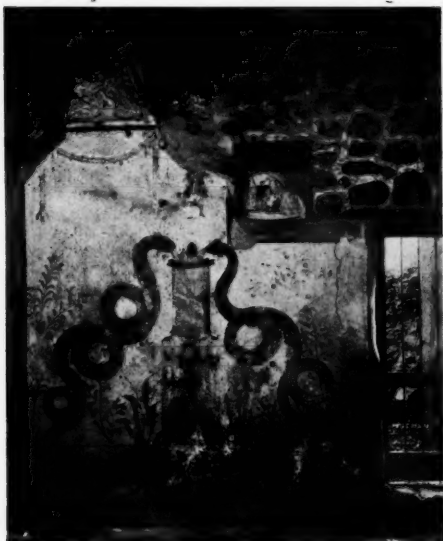


FIG. 1.—TYPICAL HOUSE SHRINE WITH TWO  
SERPENTS FACING

(Photograph by Courtesy of Dr. T. Warsher)



FIG. 2.—PAINTED SHRINE FROM A TABERNA. A SINGLE SERPENT  
(Courtesy of Deutsches Archäologisches Institut, Rome)



FIG. 3.—SHRINE FROM A KITCHEN

(Photograph by Courtesy of Dr. T. Warsher)



FIG. 4.—PAINTED NICHE: SERPENT COILED AROUND AN ALTAR  
(Photograph by Courtesy of Dr. T. Warsher)

each other—the common attitude—both serpents approach the altar from the same side. This latter point is important in illustrating the freedom with which the figures of the serpents were treated. Another common variation is that of having the serpent (usually single) coiled about the altar. Fig. 4 shows one of this type taken from the shrine in the peristyle of the *Casa degli Scienziati*<sup>7</sup>—a square niche, with a painting on the back wall depicting a red serpent coiled about a yellow altar which stands between two trees.<sup>8</sup> Finally, there is an occasional representation of a serpent not participating in the rites, but shown as a sacred symbol, like the one coiled within a wreath of laurel on an inner wall of the large niche of the *Casa del doppio larario*.<sup>9</sup>

It is a point of great importance that the serpents which we find regularly on the house shrines appear also on the public shrines at the street-crossings, the compita, and that these serpents of the compita are identical in all respects with those on the house shrines.<sup>10</sup> They are usually, if not always, present;<sup>11</sup> they appear either singly or in pairs;<sup>12</sup> when in pairs they are frequently distinguished as male and female;<sup>13</sup> they are shown facing one another or appear coiled about the altar;<sup>14</sup> and they are to be found either with other deities on the compitum or alone on the shrine.<sup>15</sup>

What is the meaning of these serpents? The accepted interpretation is that found in Wissowa's *Religion und Cultus der Roemer*.<sup>16</sup> This interpretation is not original with him, however, but goes back at least as far as Preller's *Roemische Mythologie*,<sup>17</sup> since when it has been generally accepted and is now to be found in all the handbooks. It is, briefly, this: the serpent is sacred to the *genius*; it is represented on the

<sup>7</sup> *Corpus*, no. 209; another fine example with the serpent and altar in stucco relief is no. 335 (pl. 23, 2).

<sup>8</sup> Though the serpent coiled about an altar is not uncommon, it is far less frequently met with than the serpent (or pair of serpents) approaching the altar from the side. The former gives the impression of being a vestige of an older type fast becoming outmoded in the last days of Pompeii. Twenty-five examples of the serpent coiled about the altar are listed in the index of the *Corpus* s.v. *Serpents, coiled about an altar* (p. 106). In a few cases this type persists in the painting along with the other type which approaches from the side: e.g. *Corpus*, no. 36 (pl. 9, 3) with the head of Mercury; no. 468 (pl. 22, 1) with the two Lares; no. 204 (pl. 28, 4)—the serpents alone. <sup>9</sup> *Corpus*, no. 266 and pl. 32, 1.

<sup>10</sup> I have not included an illustration of the serpents on the compitum, because satisfactory photographs of compita are very difficult to find. I have, however, examined all the compita in Pompeii on the spot, and prepared a full description of them after the manner of my *Corpus* of the house shrines. There is nothing to indicate that the compita serpents are different from those on the house shrines.

<sup>11</sup> The poor state of preservation of monuments discovered long ago, and the inadequacy of contemporary excavation reports combine to render difficult the identification of the figures painted on some of the Pompeian compita, but in nearly all cases it is certain that serpents were represented.

<sup>12</sup> E.g. two serpents on a single shrine:

VIII, iii—N.E. corner (Helbig 7)  
IX, ii—S.W. corner (Helbig 29)  
VII, vii, 22 (Helbig 59)

One serpent on a shrine:

I, iii—S.E. corner (Sogliano 5)  
II, i—N.W. corner (NS. 1913, p. 189)  
Near the Porta di Nola (Helbig 43)

<sup>13</sup> E.g. V, ii—W. side (Sogliano 7); IX, ii—S.W. corner (Helbig 29). Details of differences in size or in crest and beard are based on my own observation rather than on the published descriptions, which are usually too brief to include such details.

<sup>14</sup> An example of a compitum with a single serpent coiled about an altar is that at II, i—N.W. corner (NS. 1913, p. 189).

<sup>15</sup> Of the compita referred to above in note 12, two have no other figures but the serpents: IX, ii—S.W. corner and I, iii—S.E. corner.

<sup>16</sup> Georg Wissowa, *Religion und Cultus der Roemer*<sup>2</sup> (I. Mueller's *Handbuch der Altertumswissenschaft*), Muenchen, 1912, p. 176.

<sup>17</sup> Ludwig Preller, *Roemische Mythologie*<sup>3</sup>, von H. Jordan, Berlin, 1881–83, v. 2, p. 196.



house shrine as the symbol of the genius, that is, of the procreative powers of the master of the house, which is the basic idea underlying the Roman genius; the two serpents frequently represented on a shrine symbolize the genius of the master of the house and the *juno* of his wife; when a house-owner is unmarried, then a single, male serpent appears on his shrine. This explanation has a long list of famous names to support it,<sup>18</sup> but it has not, as far as I am able to discover, any support at all in antiquity, either from ancient authors or from archaeological remains.

The evidence cited by Wissowa is of the scantiest. In the first place, he refers to the passage in Pliny,<sup>19</sup> where serpents are said to be semi-domesticated and commonly kept about the house. This Roman familiarity with serpents is corroborated elsewhere and indicates, perhaps, that the serpent was considered sacred, but in no wise connects it with the conception of the genius.

In the second place, Wissowa points to the several stories from Roman history in which a serpent or a pair of serpents appears as a portent, foretelling an event of importance to the person to whom it appears. For example, the elder Gracchus found a pair of serpents in his house and consulted the haruspices as to the meaning of the portent.<sup>20</sup> They advised him to release one serpent and kill the other, warning him that either he or his wife must expect death, according as the male or female serpent was slain. Now it is to be noted that Cicero in relating this story regards the appearance of the serpents as a mere portent, comparable to a mule bearing young, whereas Wissowa understands them to be the genius of Gracchus and the *juno* of his wife. But there is neither here nor in similar stories any evidence to justify this identification of the serpent that bears the portent with the person to whom he appears.

Such portents with the serpent acting as principal are numerous in the pages of Livy, Valerius Maximus and Julius Obsequens. I have collected and studied these portents. The serpents bring good or bad news by merely appearing — only a haruspex could tell which was intended; they come singly or in pairs to a single individual; they foretell news of importance to a private individual or to the entire state. For example:

While Ti. Gracchus was sacrificing in Lucania,<sup>21</sup> two serpents suddenly appeared, seized the liver of the victim, and retired into hiding. This was a portent of his coming death (212 B.C.).

<sup>18</sup> Th. Birt in Roschers *Lexikon*, s.v. *Genius*, 1886; A. De Marchi, *Il culto privato di Roma antica*, 1896; L. Cesano in Ruggiero, *Dizionario epigrafico*, s.v. *Genius*, 1906; W. F. Otto in *RE.*, s.v. *Genius*, 1912; E. Kuester, *Die Schlange in der griechischen Kunst und Religion*, 1913; Hartmann in *RE.*, s.v. *Schlange*, 1921; Mau, *Pompeji in Leben und Kunst*,<sup>2</sup> 1908.

<sup>19</sup> *NH.* xxix, 72: Anguis Aesculapius Epidauro Romam advectus est vulgoque pascitur et in domibus, ac nisi incendiis semina exurerentur, non esset fecunditati eorum resistere.

For a convenient collection of the rest of the evidence on this Roman practice, see E. Kuester, "Die Schlange in der griechischen Kunst und Religion," *Religionsgeschichtliche Versuche und Vorarbeiten* 13, 2, Giessen, 1913, p. 146 and note 2.

It is noteworthy that Pliny does not look upon this domesticated serpent as the genius, but as Aesculapius. In his mind, then, the Roman practice of keeping serpents about the house was not original with them, but acquired from the Greeks.

<sup>20</sup> Cicero, *De divinatione* i, 36 and ii, 62; Plutarch tells the same story in his *Life of the Gracchi*, ch. 1.

<sup>21</sup> Val. Max. i, 6, 8: Consul enim cum in Lucanis sacrificasset, angues duae ex occulto prolapsae repente hostiae, quam immolaverat, adeso iocinere in easdem se latebras rettulerunt. The same portent is recounted by Livy xxv, 16, 2-4.

While Sulla was performing a sacrifice <sup>22</sup> during the Social War, a serpent suddenly appeared on the altar. That was a portent of coming victory.

C. Hostilius Mancinus saw a huge serpent when he was boarding ship <sup>23</sup> at Genoa. That portent foretold his death.

At another time the appearance of two black serpents in the temple <sup>24</sup> of Minerva was understood to portend civil strife, as compared with similar serpents that appeared to Gracchus and his wife to foretell death to one of them as private citizens.

From these and similar appearances of serpents we can conclude only that these reptiles were often chosen to bear portents. There might or might not be a special significance in a pair of them appearing at once. One would have served quite as well as two in most of the cases mentioned above. But two were chosen for the Gracchus portent, because there were two persons involved. The serpents in this case, however, can be said to represent Gracchus and his wife only in the general sense in which the nine unfortunate sparrows devoured by the serpent in the portent at Aulis <sup>25</sup> represented the nine years of the Trojan war.

Finally, Wissowa cites the stories of a serpent entering the bed of a married woman and begetting a son who lived to become famous.<sup>26</sup> But this is patently a Greek story told about Roman heroes, as Livy himself points out. The same story was told of Alexander the Great, Aratus of Sicyon and Aristomenes, before it was taken over to explain the greatness first of Scipio Africanus, later of Augustus. Yet Wissowa cites this as one of the chief evidences of the appearance of the Roman genius in serpent form. It is far more significant, I think, that in all Latin literature preserved to us there is not a single reference to a serpent representing, or in any way connected with the genius of a man. At least a search through quotations about the genius which fill sixteen columns of the *Thesaurus Linguae Latinae* <sup>27</sup> reveals but one mention of a serpent and that one is definitely named the *genius loci*—quite a different creature.

We are forced, then, to conclude that the evidence of ancient authors does not substantiate Wissowa's interpretation of the serpent as the genius of a man. The literary evidence is, at best, negative. Let us now consider the archaeological evidence.

Difficult to explain, on the basis of the accepted theory, are the numerous instances at Pompeii where a single house contains two shrines, on one of which there is but a single serpent, on the other a pair of them. Sometimes it is the shrine in the atrium, or other living room, that has the pair of serpents, while the kitchen shrine has but

<sup>22</sup> *Idem* i, 6, 4: L. Sulla consul sociali bello, cum in agro Nolano ante praetorium immolaret, subito ab ima parte arae prolapsam anguem prospexit. qua visa Postumi aruspices hortatu continuo exercitum in expeditionem eduxit ac fortissima Samnitium castra cepit.

<sup>23</sup> Jul. Obseq. 24: Hostilius Mancinus consul in portu Herculis cum conscenderet navem petens Numantiam, vox improviso audita: mane Mancine. cumque egressus postea navem Genuae conscendisset, anguis in navi inventus e manibus effugit. Ipse consul devictus, mox Numantinis deditus.

<sup>24</sup> *Idem*, 28a: Angues duo nigri in cella Minervae allapsi civilem caedem portenderunt.

For other serpents in portents, see Jul. Obseq. 42, 47, 58; Pliny, *NH.* viii, 153; Ovid, *Fasti* ii, 711.

<sup>25</sup> *Iliad* ii, 326–9.

<sup>26</sup> Livy xxvi, 19, 7; cf. Aulus Gellius vi, 1, 3. A convenient collection of references to the passages where supernatural generation is mentioned, is to be found in Otto Weinreich, "Antike Heilungswunder," *Religionsgeschichtliche Versuche und Vorarbeiten* 8, 1, p. 93 and note 1.

<sup>27</sup> V. Bulhart in *Thesaurus Linguae Latinae* s.v. *Genius*, 1929.



one; sometimes the opposite arrangement prevails. In other houses having two shrines, one or two serpents appear consistently on both *lararia*.<sup>28</sup> The only adequate explanation here is that a pair of serpents bore no special significance, that one or two were used interchangeably. It might be suggested that in cases like these, two men occupied the same house and each had his own shrine. But the example of the famous *Casa dei Vettii* effectively disposes of that explanation. For we know from electoral notices that two men lived here;<sup>29</sup> yet it has but one shrine (*Corpus*, no. 211). Similarly, an electoral notice tells us that the shop at IX, viii, 4 was owned by a married man. On his shrine, however, there is only a single serpent (*Corpus*, no. 449).

Again, as we have already observed, the same serpents are found on the *compita* as on the house shrines. Is it not remarkable that, if these serpents represent the genius of a man and the *juno* of his wife, they appear on the public altars of the street crossings? We might perhaps suppose them to symbolize there the genius and *juno* of the emperor and his wife, were it not for the variation in number. But how explain a single serpent on one *compitum* and a pair of them on another? If, however, we assume that the serpent on both public and private altars represents the *genius loci*, then this difficulty disappears.

There can be no doubt as to the representation of the *genius loci* in serpent form. I have already referred to the one place in Latin literature where the genius is said to appear as a serpent. This is the famous passage in the *Aeneid* (v, 85), where Aeneas, performing rites at the grave of his father, perceives a serpent on the altar and is perplexed whether he should consider it "*geniumne loci, famulumne parentis*." Servius, in his comment on the passage, adds this explanation: "*Nullus enim locus sine genio, qui per anguem plerumque ostenditur*."

In addition to this evidence from literature we are fortunate in having equally indisputable archaeological proof. There is a well known painting from Herculaneum (fig. 5),<sup>30</sup> depicting a single serpent coiled about an altar and raising his head to the offerings on top. Beside him is the inscription: GENIUS HUIUS LOCI MONTIS. Unfortunately, we know nothing of the origin of this painting, and so nothing of its original associations. We know only that it was found at Herculaneum, but that is enough for our present purpose. What mountain could the *mons* mentioned in the

<sup>28</sup> Houses having two shrines, with a pair of serpents on one of them, a single serpent on the other:

I, ii, 3 (*Corpus*, no. 3, 4) — 2 serpents in the atrium, 1 in the kitchen.

V, ii, 1 (*Corpus*, no. 83, 85) — 2 serpents in the atrium, 1 in the kitchen.

V, ii, ? (*Corpus*, no. 99, 100) — two rooms behind a *taberna*: in the first of them is a single serpent, in the second, a pair.

V, ii, ? (*Corpus*, no. 101, 102) — 1 serpent in the *ala* of the atrium, 2 in the *peristyle*.

VI, i, 25 (*Corpus*, no. 235, 236) — 2 serpents in small room off atrium, 1 in kitchen.

IX, ii, 17 (*Corpus*, no. 397, 398) — 2 serpents in *peristyle*, 1 in kitchen.

Houses having two shrines with a pair of serpents on each:

I, vii, 10-12 (*Corpus*, no. 40, 41) — atrium and *apotheca*.

I, x, 7 (*Corpus*, no. 56, 57) — *portico* and kitchen.

V, iv, 13 (*Corpus*, no. 126, 127) — *viridarium* and kitchen.

House having two shrines with a single serpent on each:

IX, iii, 20 (*Corpus*, no. 417, 418) — *viridarium* and kitchen.

<sup>29</sup> Mau, *op. cit.*, p. 338.

<sup>30</sup> *Antichità di Ercolano. Pitture*, i, Napoli, 1755, p. 207. The panel (now in the Museo Nazionale at Naples) was found in Resina. Nothing is known of the wall from which it came; it may well have formed part of a shrine. See *CIL*, iv, 1176, for the inscription.



FIG. 5.—PAINTING OF A *Genius Loci* FROM HERCULANEUM  
(From *Pittura d'Ercolano*)



FIG. 6.—DETAIL OF A SHRINE DEPICTING MOUNT  
VESUVIUS  
(Photograph by Courtesy of Dr. T. Warsher)



FIG. 7.—SACRED PAINTING INTENDED TO PROTECT A SPOT AGAINST DEFILEMENT  
(Courtesy of G. E. Sommer, Naples)

inscription be but Vesuvius? From Pompeii comes a striking parallel to this painting, without any inscription, but with a picture of Vesuvius. This is the famous representation of the mountain from a Pompeian lararium (fig. 6).<sup>31</sup> In it we see the mountain in the form which it had before the eruption of 79 A.D., and, below it, a serpent of the familiar lararium type approaching the offerings on an altar. Need we any inscription to tell us that this serpent too is the *Genius huius loci montis*?

Before examining other examples of Pompeian serpents, let us inquire briefly into the nature of the genius loci. He is assuredly quite different from the genius of a man. This latter is fundamentally a Roman conception and is traceable far back in Roman religion.<sup>32</sup> The genius loci, on the other hand, first appears late in Roman history<sup>33</sup> and is probably to be associated with Greek ideas. The term genius originally symbolized the procreative powers of a man, from which it was soon broadened to be synonymous with the essence of a man's being. Then the Romans easily transferred the idea from men to inanimate objects,<sup>34</sup> as expanding Rome found her religious notions inadequate. Thence arose the genius of a place. A still further development was the application of the conception of genius to abstractions.<sup>35</sup> Already at the time of the Second Punic war sacrifice was made to a public Genius<sup>36</sup> apparently the same as the later *Genius publicus*, *Genius populi Romani* and *Genius Romae*.<sup>37</sup> Closely related was the genius of the emperor.

That these later extensions of the genius were felt as deities really quite distinct from the genius of a man, is shown by the offerings they received. To the genius of a man were regularly offered wine, incense and flowers,<sup>38</sup> as we know from frequent allusions in literature, especially the lyric poets. Bloody sacrifice to one's genius is specifically forbidden, according to Censorinus.<sup>39</sup> Yet the public genius received in 218 B.C. *maiores hostiae quinque* and, of course, a bull was regularly sacrificed to the genius of the emperor.<sup>40</sup> What offerings are made to the serpents on the Pompeian shrines? We have already observed that they receive eggs and pine-cones.<sup>41</sup> It is apparent then that the name *genius* embraced quite distinct deities.

<sup>31</sup> From the *Casa del Centenario* (IX, viii, 3); see *Corpus*, no. 448 and pl. 40, 2 for description and illustration of the complete shrine. A fine photograph of this Vesuvian panel is to be found in the NS. 1880, pl. 7.

<sup>32</sup> Wissowa, *op. cit.*, p. 175; Otto in *RE.*, s.v. *Genius*, col. 1155.

<sup>33</sup> Birt in Roscher's *Lexikon*, s.v. *Genius*, col. 1621: "Hiermit gelangen wir im Gegensatz zu den Genien von Personen (Familien, Staaten) zu den bloss räumlichen Genien als Ortshuotern, die aus späterer Zeit nicht nachweisbar scheinen, sowie sie auch dem ersten Wortsinne des Genius nicht mehr entsprechen." Cf. Wissowa, *op. cit.*, p. 178. <sup>34</sup> Otto, *op. cit.*, col. 1165-68; Wissowa, *op. cit.*, pp. 177-79.

<sup>35</sup> Wissowa, *l.c.*; Cesano, *op. cit.*, p. 467.

<sup>36</sup> Livy xxi, 62, 9: . . . et Genio maiores hostiae quinque; cf. Wissowa, *op. cit.*, p. 179.

<sup>37</sup> See the references cited above in notes 34, 35, especially Wissowa, *op. cit.*, pp. 177-78.

<sup>38</sup> Otto, *op. cit.*, col. 1160-61; Cesano, *op. cit.*, p. 455, col. 1.

<sup>39</sup> *De die natali* ii, 3; cf. Preller-Iordan, *op. cit.*, p. 197, note 3.

<sup>40</sup> L. R. Taylor. *The Divinity of the Roman emperor* (American Philological Association. *Monographs*, no. 1) 1931, p. 192.

<sup>41</sup> For additional examples of eggs and pine-cones as offerings, see the *Corpus*, pl. 15, 2; 16, 1; 18, 1; 22, 1 and 3; 24, 2; 26, 1 and the accompanying descriptions; cf. too Mau, *op. cit.*, p. 280.

The significance of these two objects as offerings is not clear to me. The egg was most commonly used in the Greek cult of the dead, and is often pictured on illustrations of sacrifices at tombs; see M. P. Nilsson, "Das Ei im Totenkult der Alten," *Archiv fuer Religionswissenschaft* 11, 1908, pp. 530-46 and Kuester, *op. cit.*, p. 75, note 2. This parallel sheds no light on the problem of the use of eggs as offerings on the Pompeian shrines, for by no stretch of the imagination can we connect the house altars with the cult of the dead.

If the *genius loci* is distinct from the original conception of the *genius* of a man, what is his nature, and what his likely origin? He is fundamentally a guardian of a spot—originally a sacred spot.<sup>42</sup> This conception was common to the Greeks and, I believe, foreign to the Romans. The Greeks thought of this guardian as a serpent: for example, the serpent guardian of the Garden of the Hesperides, the serpent that bit Philoctetes for trespassing, and the serpent that Medea lulled to sleep. We have evidence that the serpent of Pompeii was just such a guardian. It is not on the shrine that he appears in this original role, but on walls that needed his protecting influence. We frequently find one or two serpents painted on the exterior walls of a house, where they protect those walls from defilement by passersby.<sup>43</sup> One of the most conspicuous examples of this practice is still to be seen on the outer wall of a house across from the Stabian baths.<sup>44</sup> There, on a rectangle of plaster some twenty feet long, two enormous serpents are painted, coiled fantastically together. Beside them is the *graffito*: OTIOSIS LOCUS HIC NON EST DISCEDE MORATOR. A celebrated passage in Persius (i, 113) refers to this practice:

Hic, inquis, veto quisquam faxit oletum.  
Pinguet duos angues; pueri, sacer est locus.  
Extra meite . . .

Moreover, these protecting serpents were not confined to the exterior walls. In Rome, in a corridor of the Baths of Titus was found a similar painting with a more explicit injunction.<sup>45</sup> Within a Pompeian house, also in a corridor, is a painting of the same sort (fig. 7).<sup>46</sup> In it two serpents are represented attacking a squatting man caught in the act of disregarding the injunction of the accompanying inscription: CACATOR CAVE MALU(M). Now why were the serpents always chosen for this prosaic function? If it were only a religious symbol that was desired, then the figures or attributes of any of the gods of Olympus would certainly have commanded no less respect. But serpents were always used, because they were especially appropriate. As *genius loci* a serpent was guardian of the spot where he resided and he could be expected to watch over it and punish any who defiled it. A painting of the *genius loci*—made to appear as fierce as possible—served to remind the passerby that the property was well defended.

But one point still remains. Why is the serpent represented now singly, now in pairs? This point need not detain us, for it was argued long ago. An examination of the serpents so frequently depicted in Greek and Roman art shows that the serpent, which was originally thought of as one, was soon doubled for artistic reasons—in order that they might be represented symmetrically. This point was demonstrated by W. Gerhard in 1847 in his article *Ueber Agathodaemon und Bona Dea*.<sup>47</sup> In it he cited several examples of representations of the same story in which one or two serpents were used interchangeably and with no difference in their significance.<sup>48</sup> So it is with the serpents on the shrines, public and private. One or two are used according

<sup>42</sup> Cesano, *op. cit.*, p. 462 and the dedications quoted pp. 464–7.

<sup>43</sup> Wissowa, *op. cit.*, p. 177 and note 1; Birt, *op. cit.*, col. 1622.

<sup>44</sup> On the east side of Insula xi of Regio VII; cf. Overbeck-Mau, *Pompeii*, Leipzig, 1884, p. 244.

<sup>45</sup> A. De Romanis, *Le antiche camere esquiline*, Rome, 1882, p. 7.

<sup>46</sup> *Corpus*, no. 442. It is interesting that even here the serpents preserve the common pose of facing each other.

<sup>47</sup> *ABA*, 1847, pp. 461–90, Taf. 1–4.

<sup>48</sup> *Op. cit.*, pp. 463, 482 notes 27, 28.

to the taste of the shrine-maker or the demands of the space to be filled. Mau recognized this, when he referred to the twin serpents on a compitum as "*zwei Schlangen, Personifikationen des Ortsgenius*." <sup>49</sup> Then he went out of his way to use a different explanation for the same serpents on the house shrines, which after all are also only the double genius loci.

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<sup>49</sup> Mau, *op. cit.*, pp. 239, 280.



## GRAVES FROM THE PHALERON CEMETERY

SINCE the publication in 1916 of the graves found in the seventh-century cemetery at Phaleron,<sup>1</sup> important finds of Proto-Attic vases have been made in the Agora, at the Kerameikos, and elsewhere.<sup>2</sup> Since that time, too, have appeared the important studies of Johansen and Payne,<sup>3</sup> tracing the development and establishing the chronology of Protocorinthian ware. Although the parallel development of Proto-Attic pottery is known in general, it is not established on as firm a basis as is that of Protocorinthian. The published articles dealing with Proto-Attic ware are either stylistic studies based on a few important pieces in various museums<sup>4</sup> or publications of large groups of vases and fragments found together but extending over too long a period of time to allow of a detailed study of the development.<sup>5</sup> The graves in the Phaleron cemetery, on the contrary, contained small closed groups of vases which often consisted of Proto-Attic and Protocorinthian together. In the light of the recent studies of Protocorinthian ware it has seemed worth while to republish some of the Phaleron groups. By means of the Protocorinthian vases found in them we may date the graves and arrange them in a chronological sequence;<sup>6</sup> we may then perhaps trace the development and fix the dating of the Proto-Attic vases found with them. Although it has been remarked, not without truth, that most of the pottery from the graves at Phaleron consists of small cheap

<sup>1</sup> S. Pelekides in Δελτ., hereafter called *Delt.* ii, 1916, pp. 13 ff. Mrs. Semni Papaspyridi-Karouzou has been, as always, most kind and helpful in forwarding work done in the National Museum. The photographs are by H. Wagner. A closer study of the grave groups from the Phaleron cemetery has led to some slight modification of the dating suggested for several in *Hesperia*, *Supplement* ii, Appendix i, pp. 231 ff.

<sup>2</sup> Two large groups and a small one from the Agora have been published: *Hesperia* ii, 1933, pp. 542 ff.; *Hesperia*, *Supplement* ii, Group C, pp. 139 ff.; *Hesperia* vii, 1938, pp. 412 ff. A number of other groups at the Agora are as yet unpublished. The finds from the Kerameikos are likewise unpublished; preliminary mentions of them are made in the annual reports on the Kerameikos excavations which have appeared in *A.A.* 1932-1937.

<sup>3</sup> Johansen: K. F. Johansen, *Les Vases Sicyoniens*, Copenhagen 1923. *PV.*: H. Payne, *Protokorinthische Vasenmalerei*, Berlin 1933. *NC.*: H. Payne, *Necrocorinthia*, Oxford 1931. *CVA.* Oxford ii; the section on the Protocorinthian and Corinthian pottery is by Payne.

<sup>4</sup> J. Boehlau, *JdI.* ii, 1887, pp. 33 ff.; J. Cook, *BSA.* xxxv, 1934-35, pp. 165 ff. The great collection of Proto-Attic pottery from Aegina in Berlin has at last been published in *CVA.* Deutschland ii, Berlin i. Although the authors attribute a number of vases to different hands, their work can hardly be called a stylistic study; nor can the Berlin vases, in the absence of archaeological data as to their discovery, be classed as a closed group.

<sup>5</sup> The two large groups from the Agora mentioned above, note 2.

<sup>6</sup> The chronology for Protocorinthian pottery used here is that suggested by Payne in *PV.* p. 20 — a considerable modification of Johansen's chronology. The dating put forward by Payne has met with fairly wide acceptance; the two latest articles that deal with early Greek chronology both suggest that any future modification will have to be toward a later, rather than an earlier, dating: A. R. Burn, *JHS.* lv, 1935, pp. 130 ff.; A. W. Byvanck, *Mnemosyne* iv, 1936-37, pp. 181 ff. The publication of two early graves from Selinus in *P*(apers of the) *B*(ritish) *S*(chool at) *R*(ome) i (New Series) 1938, pp. 115 ff. and pls. XIII-XVIII, is useful, and confirms Payne's results. The author has got into difficulties by dating the groups much too early: the amphoriskos with padded dancers, pl. XV, B2 cannot be earlier than the close of the seventh century, and the cup pl. XVIII must be early sixth. The two groups can hardly be dated before the very end of the seventh century.



vases without great variety or elaborate decoration,<sup>7</sup> nevertheless a study of the simpler Attic pots of the seventh century may be of use for the placing of the more ambitious vases often found with them. The excavator will attest, too, that cheap and simple vases are found in far greater numbers than elaborately decorated ones and are therefore, to him at least, often of greater importance for purposes of chronology.

Twenty-six of the eighty-seven graves excavated by Pelekides are republished here. Of the twenty-six all but one (Grave 34) were urn-burials of small children; presumably the part of the cemetery in which they were found was devoted in the seventh century exclusively to burials of children.<sup>8</sup> Of the graves not under consideration here many contained no vases; of others the contents have become lost or mixed, so that the groups of vases cannot be trusted as evidence. Fortunately, at the time when the finds from the Phaleron cemetery were taken to the National Museum in Athens, the more important groups were entered in the museum inventory and every pot from each group was given the same inventory number, so that, with few exceptions, the better groups have remained intact. In a few cases vases are missing or have become mixed; in others, where the pottery was not entered in the inventory, traces of pencilled numbers on the vases themselves have served for their identification. Whenever groups are entered in the museum inventory, the number has been given. The grave numbers of Pelekides' publication have been kept in order to avoid confusion, and the numbers of individual vases within the groups have been kept for the same reason. In addition, the number of each vase as listed in Pelekides' catalogue has been given in brackets, so that it may be easily found in the original publication. The graves are listed chronologically by quarters of the century, in accordance with the dating suggested for each by the Protocorinthian pottery found in it.

<sup>7</sup> Cook in *BSA*. xxxv, 1934-35, p. 170, note 1, and p. 202.

<sup>8</sup> Of the six methods of burial used in the Phaleron cemetery, burial in urns was used only for small children and all the urn-burials are of the seventh, or early sixth, century. The tiled graves are later; a photograph of one of them in Professor Keramopoulos' book 'Ο Ἀποτυμπανισμός, fig. 10, shows late sherds among the tiles. Of the inhumations one, Grave 13, contained fourth-century pottery; another, Grave 53, contained a "black-glazed kotyle and skyphos." None of the graves built with slabs of stone can be proved to be early, although Grave 81A contained early pottery which had perhaps been taken from an earlier grave disturbed when it was dug. Keramopoulos remarks, *op. cit.*, p. 6, note 2—"I was present myself in 1912 at the excavation of a grave made with marble slabs . . . it appeared to me not older than the fifth or fourth century." One burial in a terracotta sarcophagus cannot be identified or dated. The pyres contained no human bones; they belong to the seventh century and may have been burned in connection with the urn-burials of children. All the burials other than those of children in urns are open to suspicion of being late additions in the cemetery. The skeletons found buried in trenches with irons about the necks, wrists, and ankles, called the σιδηρόδετοι, have caused much discussion, and have been assigned by Keramopoulos to an early period. It would seem unlikely, however, that at Phaleron malefactors who had been put to death at a crossroad—for such the σιδηρόδετοι seem to have been—should have been buried in a cemetery in use at the time for the burial of ordinary citizens; at Athens the bodies of executed criminals were thrown in the Barathron. The σιδηρόδετοι were probably executed at the crossroad that lay beside the Phaleron cemetery throughout antiquity, at a time when the cemetery had long ceased to be used for burials. In the cemetery at Marathon Professor Soteriades found that a special part of the area had been used only for burials of children: *Praktika* 1934, pp. 37 ff.

## Graves to be dated around 700

## Graves 47 and 83

## GRAVE 47. Urn-burial of a child. Figs. 1 and 2.

*Deltion*, p. 21, no. 52. Museum Inventory, 14964.

## 47, 1 -Protocorinthian Skyphos (16)

*Delt.*, fig. 22, 1; Johansen, pl. IX, 6 -Early Protocorinthian. Later in shape than *CVA*. Oxford ii, pl. I, 31, which is dated by Payne in the late eighth century; comparable to Payne, *PV*, pl. X, 4 -"a linear vase of the late eighth -early seventh century." To be dated about 700.

## 47, 2 -Hand-made Oinochoe (88)

*Delt.*, fig. 43, 2.

## 47, 3 -Protocorinthian Aryballos (56)

*Delt.*, fig. 33, 3; Johansen, pl. IV, 2 -Early Protocorinthian. In shape compare two aryballoi in Oxford: *CVA*. Oxford ii, pl. I, 2 and 10, the former dated by Payne at the end of the eighth century, the latter probably early in the seventh. To be dated, like the skyphos 47, 1, about 700.

## 47, 4 -Cup (98)

## 47, 5 -Oinochoe (77)

## 47, 6 -Amphora (6)

*Delt.*, fig. 11; here fig. 2.

The two Protocorinthian vases, skyphos and aryballos, give us a dating for the group at about the turn from the eighth to the seventh century. The Attic cup and oinochoe find parallels in an early seventh-century grave group from the Dipylon;<sup>9</sup> and the amphora stands at the head of an Attic series that extends down through the seventh century and into the sixth (see below, p. 50).

## GRAVE 83. Urn-burial of a child. Fig. 3.

*Delt.*, p. 23, no. 76. Incomplete; not in inventory. Only four of the eight vases listed by Pelekides could be identified. In cases where Pelekides has entered two or more vases from the same grave under one number, the vases are distinguished by the addition of a letter. Grave 83 is mentioned by Johansen, p. 39.

## 83, 1A -Cup (95) -missing.

## 83, 1B -Cup (98)

## 83, 2 -Jug-aryballos (50)

*Delt.*, fig. 32, 1. Listed by Cook as Early Proto-Attic (ca. 710-680 B.C.) in *BSA*. xxxv, 1934-35, p. 214.

## 83, 3 -Protocorinthian Aryballos (52)

Rays ending in spirals on the shoulder. Early Protocorinthian; in shape compare the aryballos *CVA*. Oxford ii, pl. I, 2, dated at the end of the eighth century. For the spiral on the shoulder compare the early seventh-century aryballos, *ibid.* pl. 1, 6. To be dated around 700.

## 83, 4 -Fragmentary Bowl with Stand (112) -missing.

## 83, 5 -Oinochoe (90) -missing.

## 83, 6 -Protocorinthian Skyphos (41)

Early Protocorinthian. Compare Johansen, pl. IX, 4 and *CVA*. Oxford ii, pl. I, 28 -late eighth or early seventh century. Our skyphos should be dated around 700.

## 83, 7 -Amphora (6) -missing.

An amphora belonging to the same class as 47, 6.

<sup>9</sup> Dipylon Grave IX; *AM*. xviii, 1893, p. 116 and pl. VIII, 1. Similar pots from graves at the Agora (Graves VII and IX), *Hesperia*, Supplement ii, figs. 20 and 24.



FIG. 1.—GRAVE 47



FIG. 2.—AMPHORAE FROM GRAVES 47 AND 43



FIG. 3.—GRAVE 83



FIG. 4.—GRAVE 19

The two Protocorinthian vases found in the grave date, like those from Grave 47, at the turn from the eighth to the seventh century. The small Attic cups from both graves are similar, and the amphora from Grave 83 must have been of about the same shape as that from Grave 47.

Graves to be dated in the first quarter of the seventh century

Graves 10, 11, 19, 27, 29, 56, 70

GRAVE 19. Urn-burial of a child. Fig. 4.

*Delt.*, p. 19, no. 37. Museum Inventory, 14957. Some of the small vases were found inside the burial amphora, and others outside; for this reason Pelekides made a distinction (not very consistently) between Graves 19 and 19A. A similar infant burial with some of the grave offerings outside the urn was found in the Agora.<sup>10</sup> All the vases listed here belonged to the same burial. Grave 19 is mentioned by Johansen, p. 39.

19, 1A — Cup (95)

19, 1B — Cup (95)

19, 1C — Cup (95)

19, 2 — Jug-aryballos (104)

*Delt.*, fig. 46, 4. Listed as Early Proto-Attic by Cook in *BSA.* xxxv, 1934-35, p. 214.

19, 3 — Oinochoe (77)

19, 4 — Protocorinthian Skyphos (15)

Early Protocorinthian; compare Johansen, pl. IX, 5. Late eighth century.

19, 5 — Attic Skyphos in imitation of Protocorinthian (22)

The shape and the conventional decoration are taken from Protocorinthian, but the vase is too small and too carelessly made to be closely datable.

19, 6 — Proto-Attic Oinochoe (64)

Although the glaze has peeled very badly, it is possible to distinguish a griffin-bird in the neck panel similar to the one on 19, 11.

19, 7 — Cup (95)

*Delt.*, fig. 45, 10.

19, 8A — Protocorinthian Skyphos (15)

Perhaps slightly later in shape than 19, 4.

19, 8B — Protocorinthian Skyphos (17)

Much later in shape than the other skyphoi from Grave 19; comparable in shape to the Middle Protocorinthian skyphos Johansen, pl. XVII, 2 (here fig. 19, from Grave 48). This skyphos can hardly be dated before the second quarter of the seventh century, but it seems to be by far the latest of the vases found in Grave 19.

19, 8C — Protocorinthian Skyphos (21)

Lines of added white border the handle-zone. Early Protocorinthian, similar in shape to 19, 8A, and in decoration to Johansen, pl. IX, 2.

19, 9 — Skyphos — missing; not listed in Pelekides' catalogue.

19, 10 — Protocorinthian Aryballos (58)

On the shoulder, large birds. The shape is similar to that of the type intermediate between Early and Middle Protocorinthian, as Johansen, pl. XIV, 8 (from Grave 48; fig. 19 below). The bird decoration on the shoulder belongs to Payne's first black-figured style, dating from the first quarter of the seventh century.

19, 11 — Oinochoe (65)

*Delt.*, fig. 37; listed as Early Proto-Attic by Cook, *BSA.* xxxv, 1934-35, p. 215. The upward tapering neck is typical of Proto-Attic oinochoai; the shape the same as that of 19, 6. The same type of griffin-bird appears in Protocorinthian on vases of the first black-figured style; compare Payne, *PV.* pl. IX, 4 (the same as Johansen, pl. V, 6b).

<sup>10</sup> Grave IX; *Hesperia*, Supplement ii, p. 36.

19, 12 —Amphora (6) —missing.

An amphora of the same type as those found in Graves 47 and 83.

Of the five Protocorinthian vases found in Grave 19 three (19, 4; 19, 8A and 19, 8C) date from around 700; one, 19, 10 belongs in the first quarter of the seventh, and the fifth, 19, 8B, is somewhat later. The two Proto-Attic oinochoai 19, 6 and 19, 11 may be dated with a certain amount of assurance in the early seventh century by reason both of their shape and their decoration. While the skyphos 19, 8B suggests that the burial was made in the second quarter of the century, the group as a whole can hardly be dated later than the first quarter.

GRAVE 56. Urn-burial of a child. Fig. 5.

*Delt.*, p. 21, no. 56. Museum Inventory, 14967.

56, 1 —Cup (95)

*Delt.*, fig. 45, 9.

56, 2 —Skyphos with in-turned rim (44)

Attic; the decoration in the handle-zone is the conventional Protocorinthian ornament.

56, 3 —Attic Skyphos in imitation of Protocorinthian (22)

*Delt.*, fig. 23, 1. Compare the Middle Protocorinthian skyphos Johansen, pl. XVII, 4. First quarter of the seventh century.

GRAVE 27. Urn-burial of a child. Figs. 6 and 7.

*Delt.*, p. 19, no. 41. Museum Inventory, 14959.

27, 1 —Cup (95)

27, 2 —Cup (98)

27, 3 —Protocorinthian Skyphos (18)

Middle Protocorinthian, to be dated in the first quarter of the seventh century; compare the skyphos from Syracuse, Johansen, p. 77, fig. 47.

27, 4 —Attic Skyphos in imitation of Protocorinthian (23)

In place of one handle, a small lump where each handle attachment should be. Like 19, 5 a small and careless imitation of a Protocorinthian model.

27, 5 —Hand-made Aryballos (103)

*Delt.*, fig. 42, 1. Undecorated; rather coarse buff clay.

27, 6 —Hand-made Oinochoe (84)

*Delt.*, fig. 41, 1. Undecorated; the clay, probably Corinthian is smoothly polished on the surface. An oinochoe of the same fabric, but slightly earlier in shape, was found in a late geometric grave at Corinth: *AJA.* xli, 1937, p. 137, fig. 1; another, closer in shape and from another grave, has not yet been published. A late example of the same type of oinochoe was found at Corinth in a deposit of Early Corinthian date: *AJA.* xli, 1937, pp. 217 ff. and no. 50; fig. 34.

27, 7 —Protocorinthian Aryballos (55)

*Delt.*, fig. 35, 1; Johansen, pl. IV, 1. In shape comparable to the early seventh-century aryballos *CV.A.* Oxford ii, pl. I, 14.

27, 8 —Protocorinthian Pyxis (42)

Reserved bands above the base and bordering the handle-zone. A shallow pyxis of the Middle Protocorinthian type with straight sides, discussed by Johansen on pp. 82–83, and illustrated on pl. XVIII, 1–3. First quarter of the seventh century.

27, 9 —Amphora (5); here fig. 7.

*Delt.*, fig. 9. Neither shape nor fabric is Attic. The poorly cleaned buff clay is full of white grits and fine gravel, and closely resembles the coarse fabrics made at Corinth throughout antiquity. The amphora is probably an importation from Corinth.





FIG. 5.—GRAVE 56



FIG. 6.—GRAVE 27



FIG. 7.—AMPHORAE FROM GRAVES 27 AND 70



FIG. 8.—GRAVE 70



The skyphos 27, 3 and the pyxis 27, 8 are both Middle Protocorinthian of the first quarter of the seventh century; the former is certainly early seventh century, the latter probably slightly later, but still of the first quarter. The aryballos 27, 7 may be slightly earlier. Our group should be dated fairly early in the first quarter of the century.

GRAVE 70. Urn-burial of a child. Figs. 7 and 8.

*Delt.*, p. 22, no. 68. Not in Museum Inventory.

70, 1 —Hand-made Oinochoe (85)

Similar in shape and fabric to 27, 6. Probably Corinthian.

70, 2A —Cup (98)

70, 2B —Cup (98)

70, 3 —Amphora (5); here fig. 7.

*Delt.*, fig. 10. The fabric is the same as that of 27, 9, and the shape is comparable, though on a much larger scale. The handles consist of triple bands: a flat band at each side and a rolled band between, grooved to give the appearance of a twisted rope. Fragments of amphoras and hydriai with similarly decorated handles have been found in unpublished early wells at Corinth; they are of the same fabric as our amphoras 27, 9 and 70, 3, which must be Corinthian.

The close resemblance between the cups and the hand-made oinochoai found in Graves 27 and 70 allows of little doubt that the two graves are closely contemporary. On the evidence of the Protocorinthian vases found in Grave 27, then, we may date Grave 70 in the first quarter of the seventh century.

GRAVE 10. Urn-burial of a child. Fig. 9.

*Delt.*, p. 18, no. 31. Not in Museum Inventory.

10, 1 —Cup (95); missing.

10, 2 —Cup (98)

Completely glazed, with reserved bands inside the rim. The glaze badly peeled. Shape as 70, 2A.

10, 3 —Skyphos (100)

An undecorated skyphos of subgeometric type and Attic fabric. A pair of skyphoi of the same shape was found in a seventh-century well at the Agora: *Hesperia, Supplement* ii, C 43–44, fig. 106.

10, 4 —Hydria (13); missing.

*Delt.*, fig. 20. Probably Attic, though possibly Cycladic; it is impossible to judge of the fabric from the photograph. Three somewhat similar Attic hydriai of the early seventh century have been found in the Agora: *Hesperia, Supplement* ii, V 1, X 1, and C 148; figs. 14, 27, and 137. Cycladic orientalizing hydriai closely resembling our Phaleron example are illustrated in *Délos* xvii, pls. XXXIV–XXXV.

Although Grave 10 contains no Protocorinthian vases, it may be dated with assurance on the evidence from the Agora in the first quarter of the seventh century.

GRAVE 29. Urn-burial of a child. Figs. 10, 11, and 12.

*Delt.*, p. 20, no. 44. Not in Museum Inventory. The pithos which contained the skeleton and the small vases was covered at the mouth by the krater 29, 5.

29, 1 —Oinochoe (83), missing.

*Delt.*, fig. 42, 2; the pot is described as of coarse red clay: perhaps household ware? No decoration is visible; the shape is the same as that of 48, 4 (here fig. 19; *Delt.*, fig. 41, 3).



FIG. 9.—GRAVE 10



FIG. 10.—GRAVE 29



FIG. 11.—GRAVE 29. SPOUTED BOWL 29, 5



FIG. 12.—PITHOI FROM GRAVES 11 AND 29



FIG. 13.—GRAVE 11



FIG. 14.—GRAVE 37

- 29, 2 —Cup (95)
- 29, 3 —Protocorinthian Aryballos (51)  
*Delt.*, fig. 35, 2. Rays on the shoulder. In shape intermediate between Early and Middle Protocorinthian; compare Johansen, pl. XIV. First quarter of the seventh century.
- 29, 4 —Attic Skyphos in imitation of Protocorinthian (22)  
 Similar to 56, 3 but slightly deeper and more pointed, and probably a little later.
- 29, 5 —Spouted Bowl (11); here fig. 11; *Delt.*, fig. 18. Listed as Early Proto-Attic by Cook in *BSA*. xxxv, 1934-35, p. 214; see also *ibid.*, p. 202, note 7. Beside the handles verticals interrupted by wavy lines; at the back lozenges, and in front running loops. A low upstanding rim around the opening. In shape compare the late geometric basin illustrated by Hampe, *Frühe griechische Sagenbilder*, pl. 22, below. Our basin is slightly shallower and more rounded at the shoulder, wider open at the top, and with lower rim. Similar in shape is a bowl from Menidi with sub-geometric decoration: *JdI*. xiv., 1899, p. 111, fig. 19. The Proto-Attic bowl from Thebes illustrated in *JdI*. ii, 1887, pl. IV is more developed in shape and belongs in the second quarter of the century. A fragment of a bowl very similar in shape and with decoration much like that of 29, 5 was found in a seventh-century well at the Agora: *Hesperia, Supplement* ii, C 97, fig. 117. A krateriskos from Aegina has Proto-Attic decoration of the same kind: *CVA*. Berlin i, A 14, pl. VII, 3.
- 29, 6 —Pithos (4), here fig. 12.  
*Delt.*, fig. 8. Coarse red clay with large white grits; made by hand. A small projecting knob below the shoulder at each side. Incised decoration: a lozenge chain between wavy horizontal lines below the neck, and a similar lozenge chain, doubled, around the body at the level of the greatest diameter; above each of the four projecting knobs a column of chevrons one above the other, running up to the decorated band below the lip. Compare the incised pithos from a very late geometric grave at the Dipylon (Grave X), *AM*. xviii, 1893, p. 119, fig. 12. The decoration of household ware and pithoi with incision, while it started late in the geometric period, reached its greatest elaboration just before the middle of the seventh century.

The Protocorinthian aryballos 29, 3 dates from the first quarter of the seventh century, and the skyphos 29, 4 is clearly modelled on a Middle Protocorinthian vase of the same date. The Attic bowl 29, 5 agrees in date with the Protocorinthian vases; the grave should probably be dated well down in the first quarter of the century.

#### GRAVE 11. Urn-burial of a child. Figs. 12 and 13.

*Delt.*, p. 20, no. 43. Museum Inventory, 14953.

Discussed by Johansen, p. 74.

- 11, 1 —Cup (95)
- 11, 2A —Cup (98)  
*Delt.*, fig. 45, 7.
- 11, 2B —Cup (98)
- 11, 3 —Protocorinthian Oinochoe (73)  
 Glazed all over, without decoration. The shape is rare in Protocorinthian; examples have been found, however, in Early and Middle Protocorinthian well groups at Corinth.
- 11, 4 —Hand-made Oinochoe (89)  
 The shape corresponds to that of the conical Protocorinthian oinochoe; see Johansen, p. 22 and fig. 11.
- 11, 5A —Protocorinthian Aryballos (53)  
*Delt.*, fig. 34, 3; Johansen, pl. XIV, 5. Intermediate between Early and Middle Protocorinthian, and dating from the first quarter of the seventh century.
- 11, 5B —Protocorinthian Aryballos (55)  
*Delt.*, fig. 32, 2; Early Protocorinthian.

- 11, 5C — Protocorinthian Aryballos (58)  
Late eighth century; compare *CVA*. Oxford ii, pl. I, 2.
- 11, 5D — Protocorinthian Aryballos (62)  
*Delt.*, fig. 33, 2; Johansen, pl. XVI, 7. Middle Protocorinthian of the first black-figured style; the relatively tall pointed shape suggests a dating well down in the first quarter of the century.
- 11, 6 — Protocorinthian Skyphos (15)  
Late eighth-early seventh century; similar to 19, 4.
- 11, 7 — Protocorinthian Skyphos (29)  
A band of added white below the rim inside. See Johansen, p. 69. Middle Protocorinthian; our example is slightly later in shape than Johansen, pl. IX, 2.
- 11, 8 — Protocorinthian Pyxis (39)  
*Delt.*, fig. 28, 1; Johansen, pl. XII, 2. Early Protocorinthian; probably late eighth or early seventh century.
- 11, 9 — Pithos (3), here fig. 12.  
*Delt.*, fig. 7. Around the neck a raised ring with diagonal incisions above and below. The fabric the same as that of 29, 6. Similar in shape to the pithos from Agora Grave IX: *Hesperia*, Supplement ii, fig. 23.

Most of the vases from Grave 11 are Protocorinthian, and they range in date from the late eighth century well down into the seventh. The burial was probably made toward the end of the first quarter of the seventh century.

#### Graves to be dated around 675

#### Graves 18, 25, 34, 37

#### GRAVE 37. Urn-burial of a child. Fig. 14.

*Delt.*, p. 20, no. 49. Museum Inventory, 14963.

- 37, 1 — Cup (95)
- 37, 2 — Cup (98)
- 37, 3 — Lidded Skyphos with in-turned Rim (48)  
*Delt.*, fig. 31, 1. Attic. Glazed over all; of the same shape as 56, 2. Vases of this type were made down to the end of the century; see below, 18A, 2, fig. 28.
- 37, 4A — Protocorinthian Aryballos (59)  
Johansen, pl. XV, 6; first black-figured style. The rather pointed shape suggests a dating toward the end of the first quarter of the century.
- 37, 4B — Protocorinthian Aryballos (61)  
Johansen, pl. XX, 2; Catalogue, p. 91, no. 3. First black-figured style. A man armed with sword and shield is represented, standing between two boars. Somewhat earlier in shape than 37, 4A; first quarter of the century.
- 37, 5 — Oinochoe (81)  
*Delt.*, fig. 42, 5; Attic.
- 37, 6 — Pithos (3); missing.

The aryballos 37, 4A suggests a date at the end of the first quarter of the century, around 675, for the grave.

#### GRAVE 25. Urn-burial of a child. Fig. 15.

*Delt.*, p. 19, no. 40. Museum Inventory, 14958.

The mouth of the amphora which contained the skeleton and the small vases is reported to have been covered by a spouted bowl (like 29, 5?), which is now missing and is not listed in Pelekides' catalogue.



FIG. 15.—GRAVE 25



FIG. 16.—GRAVE 34



FIG. 17.—GRAVE 18

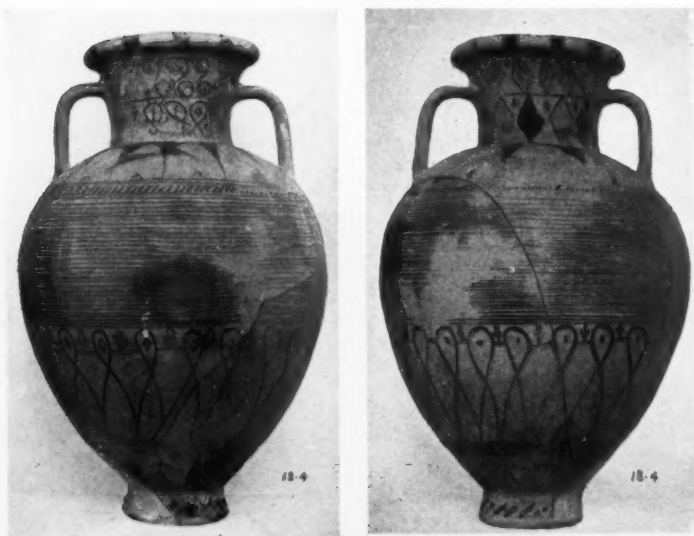


FIG. 18.—AMPHORA FROM GRAVE 18

- 25, 1 —Cup (95)
- 25, 2 —Attic Skyphos in imitation of Protocorinthian (22)  
Narrow and pointed at the bottom, with but slightly curving wall; modelled on a Middle Protocorinthian skyphos.
- 25, 3 —Protocorinthian Aryballos (49)  
Undecorated, save for spirals on the shoulder; the glaze badly peeled. Very close in shape to 37, 4B.
- 25, 4A —Jug-aryballos (109)  
*Delt.*, fig. 48. Narrow neck and round mouth. Subgeometric decoration on the neck and body; orientalizing vegetable ornament on the shoulder.
- 25, 4B —Jug-aryballos (109)  
*Delt.*, fig. 46, 1; listed as Early Proto-Attic by Cook in *BSA.* xxxv, 1934-35, p. 214.
- 25, 5 —Amphora (8); missing.  
*Delt.*, fig. 14; unfortunately this illustration is so small as to be invisible. Described as "with a thick white slip, calling to mind Ionic (?) vases, and narrow bands of reddish glaze. On each side of the neck a column of lozenges filled with fine lines between triglyphs."

The grave must be closely contemporary with Grave 37, and date from the end of the first quarter of the century.

#### GRAVE 34. Grave and Pyre (?). Fig. 16.

*Delt.*, p. 18, no. 29. Museum Inventory, 14962.

Listed as a pyre. The small vases were found with the remains of a pyre in a shaft dug in the earth. The shaft measured 1.55 m. in length by 0.55 to 0.72 m. in width; its long sides were lined with unbaked bricks, and it had perhaps been covered with unbaked bricks. No mention is made of bones.

- 34, 1 —Cup (95)  
The handle and much of the rim missing. The black glaze is very much peeled. Close in shape to 25, 1.
- 34, 2 —Oinochoe (69)  
*Delt.*, fig. 38, 1. Elongated form, with upward tapering neck.
- 34, 3 —Oinochoe (70)  
*Delt.*, fig. 38, 3. Subgeometric decoration, with orientalizing reverse spirals on the neck. Close in shape to 19, 11.

#### GRAVE 18. Urn-burial of a child. Figs. 17 and 18.

*Delt.*, p. 19, no. 35. Museum Inventory 14955.

- 18, 1 —Cup (95)  
*Delt.*, fig. 44, 8.
- 18, 2 —Protocorinthian Aryballos (60)  
*Delt.*, fig. 36; Johansen, pl. XXI, 1 and p. 93, Catalogue no. 13; Cook, *BSA.* xxxv, 1934-35, p. 202—"an aryballos of fairly advanced Archaic Style A." The tall pointed shape places our aryballos at the end of the period of the first black-figured style, and it must date very near 675.
- 18, 3 —Protocorinthian Pyxis (37)  
Middle Protocorinthian; compare the pyxides Johansen, pl. XVIII, 1-4, especially no. 3. Our pyxis is somewhat deeper than the one from Grave 11, and its walls begin already to show a slight concavity.
- 18, 4 —Amphora (9); here fig. 18.  
*Delt.*, figs. 15-16; *BSA.* xxxv, 1934-35, p. 171 and 202; called by Cook "the florid style of the end of Early Protoattic" (i.e., ca. 680). The rays above the foot are alternately outlined and glazed solid; the trefoil plants between the tops of the loops on the lower body are solidly glazed, filled with dots, or painted white with no system of alternation. The handles are deco-



rated at their bases with concentric lozenges, and on their outer faces with elaborate spiral patterns. The lozenges on the neck on one side, and the rays on the shoulder on the same side, are alternately solid and in outline; the outlined rays and lozenges seem to have been filled with white. The whole pot is covered with a thick creamy slip. The marked color contrast between the glazed and the outlined areas, and the decoration of the lip suggest the advent of the "Black and White" style of the second quarter of the seventh century.

The Protocorinthian aryballos gives us a date for our group at the turn from the first to the second quarter of the century; the pyxis, not so closely datable, probably belongs about the same time.

Graves to be dated in the second quarter of the seventh century

Graves 32, 48, and 62

GRAVE 48, Urn-burial of a child. Fig. 19.

*Delt.*, p. 21, no. 53. Museum Inventory, 14965.

Discussed by Johansen, p. 74; Payne in *CVA*, Oxford ii, p. 59, no. 10 — "a grave which cannot be earlier than the first quarter of the seventh century, owing to the presence of" 48. 8B; again, p. 60, no. 13 — "a grave which clearly belongs to the first quarter of the seventh century." Cook, in *BSA*, xxxv, 1934-35, p. 202, speaks of this as the best group from the Phaleron cemetery.

48, 1A — Mug (110)

*Delt.*, fig. 50, 3. Cook lists the three mugs from Grave 48 as Early Proto Attic: *BSA*, xxxv, 1934-35, p. 215. The shape is a degeneration of that of the geometric jug.

48, 1B — Mug (111)

*Delt.*, fig. 50, 1.

48, 1C — Mug (112)

The decoration has almost entirely peeled off; it consisted of long vertical panels from below the lip to the level of the lower handle attachment, each panel filled by a wavy vertical line.

48, 2A — Cup (97)

The cup here illustrated is included among the vases in the National Museum labelled as from Grave 48, and it bears the inventory number of the group. The cup published as from the grave and illustrated in *Deltion*, fig. 45, 1, is not to be found in the museum. There is a possibility then that the two vases have been mixed. The cup illustrated in *Deltion* is decorated with a developed floral ornament similar to that found on the Nessos Amphora in New York (Johansen, p. 116, fig. 60) and hardly to be dated before the second quarter of the century.

48, 2B — Cup (97)

*Delt.*, fig. 44, 2.

48, 2C — Cup (97)

48, 3 — Oinochoe (66)

*Delt.*, fig. 38, 4. Elongated Proto-Attic form, as 34, 2.

48, 4 — Oinochoe (78)

*Delt.*, fig. 41, 3. In shape one of a class of oinochoai that was made through most of the seventh century — e.g., 47, 5 (ca. 700) and 78, 1 (third quarter). Most of these small vases are simply glazed, with reserved bands around the body; our example is decorated with a cross-chevron pattern, concentric circles, guilloche, and a floral cross.

48, 5 — Protocorinthian Skyphos (18)

*Delt.*, fig. 22, 2; Johansen, pl. XVII, 2. Middle Protocorinthian; the tall pointed shape, narrow foot, and nearly straight side wall place this skyphos late in the subgeometric period, probably well down toward the middle of the century. It is considerably more developed in shape than the skyphos from Grave 27 (fig. 6), and somewhat later than the late skyphos from Grave 19 (fig. 4).

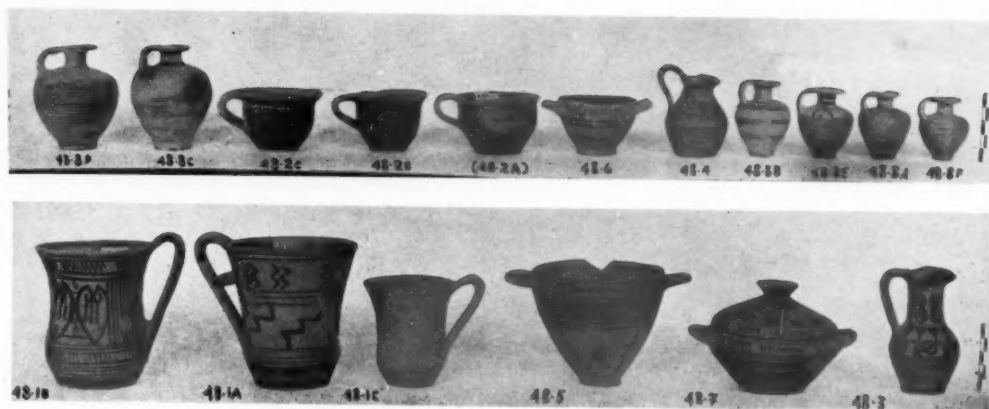


FIG. 19. — GRAVE 48



FIG. 20. — GRAVE 62



FIG. 21. — GRAVE 32



FIG. 22. — GRAVE 71

- 48, 6 — Attic Skyphos in imitation of Protocorinthian (24)  
Probably imitated from a Protocorinthian model like those illustrated by Johansen, p. 79, fig. 50 — small careless vases that began to be made before the middle of the seventh century, and continued to be made in the sixth. Hardly to be dated much before the middle of the century.
- 48, 7 — Lidded Skyphos with in-turned Rim (45)  
*Delt.*, fig. 30, 2. Similar to 56, 2.
- 48, 8A — Protocorinthian Aryballos (51)  
*Delt.*, fig. 33, 1. On the shoulder latticed rays, pointed downward. Intermediate between Early and Middle Protocorinthian; first quarter of the seventh century.
- 48, 8B — Protocorinthian Aryballos (51)  
*Delt.*, fig. 34, 1; Johansen, pl. XIV, 6. Intermediate type; referred to by Payne, *CVA*. Oxford ii, p. 59, no. 10.
- 48, 8C — Protocorinthian Aryballos (51)  
Johansen, pl. XIV, 8. Rays on the shoulder. Slightly earlier in shape than the two preceding, but still to be dated in the first quarter of the century.
- 48, 8D — Protocorinthian Aryballos (51)  
Rays on the shoulder. Slightly earlier in shape.
- 48, 8E — Protocorinthian Aryballos (56)  
*Delt.*, fig. 34, 2; Johansen, pl. XIV, 7. On the shoulder latticed rays, pointed downward. Intermediate type, as 48, 8A-B.
- 48, 8F — Protocorinthian Aryballos (not listed)  
Rays on the shoulder; Intermediate type.
- 48, 9 — Pithos (3); missing.  
Apparently of the same type as the pithos from Grave 11, fig. 12.

The six Protocorinthian aryballoi from Grave 48 are all of the same Intermediate type and date from the first quarter of the century — 48, 8B probably toward the end of the quarter. It was on the evidence of the aryballoi that Payne dated the grave in the first quarter; he may have overlooked the presence of the skyphos 48, 5, which cannot be dated much before the middle of the century. The small Attic skyphos, too, careless as it is, belongs to a type that cannot have started much before mid-century. Most of the other Attic vases seem to belong early in the second quarter.

#### GRAVE 62. Urn-burial of a child. Fig. 20.

*Delt.*, p. 21, no. 62. Museum Inventory, 14969.

- 62, 1A — Cup (96)  
*Delt.*, fig. 45, 2.
- 62, 1B — Cup (99)  
*Delt.*, fig. 44, 5. Originally entirely covered with glaze, most of which has peeled. A miniature vase.
- 62, 2 — Lidded Skyphos with in-turned Rim (47)  
A wavy line in the handle-zone, and rays on the lid.
- 62, 3 — Oinochoe (68)  
Elongated Proto-Attic form as 34, 2 and 48, 3. The decoration of the neck is the same as that which decorated the body of the mug 48, 1C and has peeled off.

Although no Protocorinthian vases were found in Grave 62, the Attic vases are so similar to those from Graves 48 and 32 that there can be no doubt that Grave 62 is to be dated with them in the second quarter of the century. The large pot used for the burial is missing, and it cannot be identified from the publication because

the account of the grave speaks of an amphora, while a pithos is listed in the catalogue of pottery as from Grave 62.

GRAVE 32. Urn-burial of a child. Fig. 21.

*Delt.*, p. 20, no. 46. Museum Inventory, 14960.

32, 1 —Cup (95)

*Delt.*, fig. 44, 6. The shape is well developed, with deep body and very flaring rim; compare a cup found in a well of the third quarter of the seventh century at the Agora: *Hesperia* vii, 1938, p. 413 and fig. 1, D6.

32, 2 —Protocorinthian Skyphos (28)

*Delt.*, fig. 23, 6; mentioned by Payne in *Necrocorinthia*, p. 279 under no. 201, as a Protocorinthian ancestor of a black-glazed type of skyphos that begins before the middle of the seventh century and continues at least until the end; see also *CVA*, Oxford ii, pl. I, 32, and Payne's remark on it. The handle-zone of our example is reserved. The short rays above the foot are a foreshadowing of what is to come at Corinth after the middle of the century. Our skyphos can hardly be dated much before 650, if as early.

32, 3 —Protocorinthian Pyxis (40)

*Delt.*, fig. 29, 1; Johansen, pl. XXIV, 1 and p. 93, Catalogue, no. 20 —Archaic Style, Class A. The absence of incision and of retouches of added color would place this pyxis in the first black-figured style, but the deepness of its proportions and the slight concavity of its wall suggest a later date. Compare the shape with that of the pyxis of the second black-figured style, Payne, *PV.*, pl. XVI. Second quarter of the century.

32, 4 —Amphoriskos (105)

*Delt.*, fig. 47; listed by Cook, *BSA*, xxxv, 1934-35, p. 215 as "Early or Middle Protoattic." Decorated on the neck with a wavy line. The shape is perhaps a miniature adaptation of the seventh-century Attic oil amphora form —47, 6 and 33, 8, fig. 2; it is truncated and ends in a wide flat base.

32, 5 —Oinochoe (67)

*Delt.*, fig. 38, 2. Similar to the Proto-Attic oinochoai from Graves 34, 48, and 62.

32, 6 —Lidded Skyphos with in-turned Rim (47)

*Delt.*, fig. 28, 2. Rays above the foot, and a wavy line in the handle-zone; the lid covered with glaze.

32, 7 —Pithos (3); missing.

The Protocorinthian pyxis belongs in the second quarter of the seventh century, and the skyphos cannot date much before the middle of the century. Grave 32, and probably Grave 62, is later than Grave 48 and should be dated slightly before the middle of the century.

Graves to be dated in the third quarter of the seventh century  
Graves 71, 74, and 78

GRAVE 71. Urn-burial of a child. Fig. 22.

*Delt.*, p. 22, no. 69. Museum Inventory, 14971.

71, 1A —Cup (98)

*Delt.*, fig. 45, 6.

71, 1B —Cup (99)

A cup of the same type as 19, 1A-C, 48, 2B-C, and 32, 1, but later: the flaring rim of the early examples has been replaced by a short offset lip. Cups with offset lip of the same type were found at the Agora in a well of the third quarter of the seventh century: *Hesperia* vii, 1938, p. 413 and fig. 1, D7-8.

## 71, 2A - Protocorinthian Pyxis (33)

*Delt.*, fig. 25, 2. The pyxides 71, 2A-B are mentioned as Late Protocorinthian by Payne, *Necrocorinthia*, p. 273, no. 55. Third quarter of the century.

## 71, 2B - Protocorinthian Pyxis (34)

*Delt.*, fig. 27, 2.

## 71, 2C - Protocorinthian Pyxis (38)

*Delt.*, fig. 26. The high rim of the lid, decorated with wavy verticals, covers the wall of the pyxis and rests on a flange projecting from its base. Compare the Late Protocorinthian pyxis, Johansen, pl. XLII, 4.

## 71, 3 - Oinochoe (77)

An oinochoe of the same class as 47, 5. For a similar oinochoe from an Agora group of the third quarter of the century, see *Hesperia* vii, 1938, p. 414 and fig. 2, D19.

## 71, 4 - Amphora (6), missing.

The three Protocorinthian pyxides, and with them the group as a whole, are to be dated in the third quarter of the century.

## GRAVE 74. Urn-burial of a child. Fig. 23.

*Delt.*, p. 22, no. 70. Not in inventory.

## 74, 1A - One-handed Bowl (94)

*Delt.*, fig. 45, 4. A wavy line in the handle-zone. A larger and somewhat earlier bowl from a seventh-century well at the Agora has a spout opposite the handle: *Hesperia*, Supplement ii, C85, fig. 117.

## 74, 1B - Cup (95)

Offset lip as on 71, 1B.

## 74, 2 - Protocorinthian Pyxis (34)

Late Protocorinthian; the same shape as 71, 2A-B.

## 74, 3 - Amphora (6); missing.

An amphora of the same type as those from Graves 47 and 33 (fig. 2).

The Late Protocorinthian pyxis, and the Attic cup of the same shape as a cup from Grave 71, date the group in the third quarter of the century.

## GRAVE 78. Urn-burial of a child. Fig. 24.

*Delt.*, p. 22, no. 72. Not in Inventory.

## 78, 1 - Oinochoe (77)

*Delt.*, fig. 40. Similar to 71, 3.

## 78, 2 - Protocorinthian Pyxis (37)

*Delt.*, fig. 25, 1. Late Protocorinthian; very close in shape as well as in decoration to 71, 2A.

## 78, 3 - Pithos (3); missing.

Grave 78 is clearly to be dated with Graves 71 and 74 in the third quarter of the seventh century.

Graves to be dated in the last quarter of the seventh century

Graves 16, 18A, 36, and 50

## GRAVE 50. Urn-burial of a child. Fig. 25.

*Delt.*, p. 21, no. 54. Museum Inventory, 14966.

## 50, 1A - Cup (99)

Ring foot. The two cups from Grave 50 are of the same type as are those from Graves 71 and 74, but they represent a later development. A ring foot has replaced the very low base of the earlier type; the body, wider and shallower and with more sharply offset lip, is somewhat metallic in shape. The handle now rises slightly above the rim.





FIG. 23.—GRAVE 74



FIG. 24.—GRAVE 78



FIG. 25.—GRAVE 50



FIG. 26.—GRAVE 36



FIG. 27.—GRAVE 18A



FIG. 28.—GRAVE 16

- 50, 1B —Cup (99)  
 50, 1C —Cup; missing. Reported as fragmentary, and not included in the catalogue.  
 50, 2A —Protocorinthian Skyphos (20)  
     Both handles missing; a band around the body decorated with coursing hounds. See Johansen, p. 78, fig. 49; also *Necrocorinthia*, p. 23, fig. 9C and p. 279 B: Late Protocorinthian —Early Corinthian vases with unincised decoration. *Delt.*, fig. 23, 4.  
 50, 2B —Protocorinthian Skyphos (20)  
     Reported as fragmentary; missing.  
 50, 3 —Attic Skyphos in imitation of Protocorinthian (27)  
     Late Protocorinthian shape, as in *Necrocorinthia*, p. 23, fig. 9A; see also *ibid.*, p. 279.  
 50, 4 —Oinochoe (79)  
     *Delt.*, fig. 41, 2. The shape is Late Protocorinthian, as illustrated in *Necrocorinthia*, p. 33, fig. 10B, and pl. XI, 3.  
 50, 5 —Pithos (1); missing.

The Protocorinthian skyphos is one of a type made in the second half of the seventh century; the Attic skyphos and oinochoe are imitated from Late Protocorinthian —Early Corinthian types which were made chiefly in the last quarter of the century. Our grave must be dated somewhat after 625.

GRAVE 36. Urn-burial of a child. Fig. 26.

*Delt.*, p. 20, no. 48. Not in Inventory.

- 36, 1 —Cup (99)  
     Similar to the two cups from Grave 50.  
 36, 2 —Protocorinthian Pyxis (35)  
     The lid missing. Deeper, and with sides more concave than the pyxides from Graves 71 and 74. Early Corinthian or Transitional; see *Necrocorinthia*, p. 292, no. 665, and fig. 129.  
 36, 3 —Attic Skyphos in imitation of Protocorinthian (26)  
     A careless miniature vase imitating the Protocorinthian type 50, 2A.  
 36, 4 —Aryballoid Jug (87)  
     *Delt.*, fig. 43, 3. Attic; the shape as of a flat-bottomed Corinthian aryballos, or a truncated conical oinochoe. Traces of added red on the wings of the birds on the body. An early example of the sixth-century group of small Attic vases decorated with birds and rows of dots; see Acropolis 583 (Graef-Langlotz i, p. 63) for another of the same shape. Other early members of the same group, 18A, 2 (fig. 27) and *Hesperia*, Supplement ii, fig. 9.  
 36, 5 —Oinochoe; missing. Reported as fragmentary, and not included in the catalogue.  
 36, 6 —Pithos (3); missing.

The Protocorinthian pyxis and the skyphos imitated from Protocorinthian place our group in the last quarter of the seventh century; the jug suggests a late dating near 600.

GRAVE 18A. Urn-burial of a child. Fig. 27.

*Delt.*, p. 19, no. 36. Museum Inventory, 14056.

- 18A, 1 —Cup (99)  
     *Delt.*, fig. 44, 3. A cup of the same type as 50, 1A-B, and 36, 1, but smaller and of finer fabric.  
 18A, 2 —Lidded Skyphos with in-turned Rim (46)  
     *Delt.*, fig. 29, 2. No traces visible of retouches with red. The decoration of the handle-zone is in the same style as that of 36, 4.  
 18A, 3 —Oinochoe (91)  
     *Delt.*, fig. 42, 4. Low ring foot and round mouth.

18A, 4—Hydria (12); missing.

*Delt.*, fig. 19. Household ware; many hydriai of this fabric have been found with sixth-century groups in the Agora. For a sixth-century example from the North Slope of the Acropolis see *Hesperia* vii, 1938, p. 219, fig. 53, no. A.P. 1135. During the development of the form in the seventh century, the ring foot becomes gradually higher, and the rolled handle replaces the band handle. Our hydria is well developed in shape and must belong at the end of the century.

Grave 18A must be dated with Grave 36 toward the end of the century.

GRAVE 16. Urn-burial of a child. Fig. 28.

*Delt.*, p. 18, no. 32. Not in Inventory.

16, 1 —Skyphos (101)

*Delt.*, fig. 45, 5. The shape is a late development of that of 10, 3; the body has become very wide and shallow, and a very slightly projecting lip has replaced the older flaring rim. Unfortunately, the Phaleron cemetery did not produce a great number of skyphoi of this type to illustrate its development; three found in an Agora well of the first half of the century are illustrated in *Hesperia*, Supplement ii, figs. 106 and 108, C43-47. Two later skyphoi, of the third quarter, are like 16, 1, shallow and with projecting lip: *Hesperia* vii, 1938, p. 413 and fig. 1, D4-5.

16, 2 —Kalathos (93)

*Delt.*, fig. 44, 1. No handle; the solid reddish glaze is much peeled and pitted.

16, 3 —Cup (99)

*Delt.*, fig. 44, 7. Similar to 50, 1A-B and 36, 1.

16, 4 —Amphora (6); missing.

Grave 16 must date from the late seventh century because of the cup, like those from Graves 50 and 36, and because of the skyphos, like those from Graves 17 and 59.

Graves to be dated about 600 or slightly later  
Graves 17, 33, and 59

GRAVE 33. Urn-burial of a child. Figs. 2 and 29.

*Delt.*, p. 20; no. 47. Museum Inventory, 14961.

33, 1 —Protocorinthian Skyphos (19)

*Delt.*, fig. 23, 3. Late Protocorinthian—Early Corinthian of the late seventh century; see *Necrocorinthia*, p. 279 and fig. 120 B.

33, 2A—Skyphos (31)

*Delt.*, fig. 24, 2. In the zone around the body feeding birds with their heads downward; at the back, blobs and crosses. No traces of added red on 33, 2A or B.

33, 2B Skyphos (32)

*Delt.*, fig. 24, 1. Large blobs on the body; feeding birds in the handle-zone.

33, 3 —Corinthian Aryballos (102); missing.

Described as having "the usual decoration" around the body.

33, 4 —Hand-made Aryballos (103)

No decoration; this is one of the very latest of the type, which starts in the geometric period.

33, 5 —Protocorinthian Pyxis (36)

*Delt.*, fig. 27, 1. Bands of added red around the lid, and around the lower body of the pyxis. Early Corinthian of the late seventh century; see *Necrocorinthia*, p. 273, no. 55, where Payne contrasts this pyxis with one from Grave 71; see also *ibid.*, p. 292, no. 665 and fig. 129.



FIG. 29. — GRAVE 33



FIG. 30. — GRAVE 59



FIG. 31. — GRAVE 17

## 33, 6 —Oinochoe (80)

*Delt.*, fig. 41, 4. The decoration is placed at one side of the vase in a panel. A bird stands at the front of the vase, facing the lion; the back is glazed. No traces of added red. The shape is Early Corinthian, as *Necrocorinthia*, p. 33, fig. 10 D. The lion is of the Attic type, dated by Payne about 600, or slightly later; see *Necrocorinthia*, pp. 192 ff.

## 33, 7 —Kothon (107)

*Delt.*, fig. 49. On the kothon, which was first adopted at Corinth in the Early Protocorinthian period, see *Necrocorinthia*, pp. 297–8 ff.

## 33, 8 —Amphora (6); here fig. 2.

An Attic oil amphora of the same type as 47, 6; the development that has taken place in the course of a century is apparent. The body has become less balloon shaped and more pointed; the foot has become lower and very flaring; the neck has become concave and lost the raised ring below the lip. No decoration appears on the neck, and the reserved bands around the body have been omitted. An amphora of the same stage of development was found at the Agora in a grave dated around 600: *Hesperia*, Supplement ii, fig. 8. For the sixth-century continuation of the type, see *Hesperia* vii, 1938, p. 183, fig. 21 (North Slope) and p. 379, fig. 14, no. 9 (Agora).

All the vases in Grave 33 suggest a late seventh-century dating; the black-figured oinochoe must date from the very end of the century, or even slightly later.

## GRAVE 59. Urn-burial of a child. Fig. 30.

*Delt.*, p. 21, no. 60. Museum Inventory, 14968.

## 59, 1 —Oinochoe (82)

*Delt.*, fig. 42, 1. Bands of added red around the body at the level of the lower handle attachment. Probably early sixth century; compare an oinochoe from the Agora, *Hesperia* vii, 1938, p. 381, no. 13, and fig. 29.

## 59, 2 —Skyphos (not listed in the catalogue)

Similar to 16, 1; probably slightly later: the vase is more carefully made, and the glaze of better quality. The type continued to be made in the sixth century; *Hesperia* vii, 1938, p. 181, no. 27 and fig. 18, A.P. 968; also p. 216, no. 19 and fig. 49, A.P. 1086.

## 59, 3 —Skyphos (25)

*Delt.*, fig. 23, 2. The very flaring foot is characteristic of the period.

## 59, 4 —Coarse Pitcher (14); missing.

The amphora from Grave 59 was broken before it was used for the burial, and it is not listed in Pelekides' catalogue. Its neck was covered with a stone slab, and a hole in its lower part (the foot was missing) was stopped by a pitcher of household ware. A "similar" pitcher from Grave 22 is illustrated in *Deltion*, fig. 21.

On the evidence of the tall oinochoe 59, 1 the grave should be dated early in the sixth century.

## GRAVE 17. Urn-burial of a child. Fig. 31.

*Delt.*, p. 18, no. 33. Museum Inventory, 14974.

## 17, 1 —Skyphos (30)

*Delt.*, fig. 23, 5. Attic; the shape is taken from early sixth-century Corinth. No decoration.

## 17, 2 —Skyphos (101)

Similar to 59, 2. The surface somewhat pitted.

## 17, 3 —Oinochoe (82)

*Delt.*, fig. 42, 3. The same very flaring ring foot appears on 17, 3 as on 59, 1. To be dated at the end of the seventh century or in the early sixth.

Grave 17, like Grave 59, should be dated probably at the beginning of the sixth century.



## THE ATTIC POTTERY

Using the evidence furnished by Protocorinthian vases found in the graves as a framework for relative and absolute chronology, we may examine the Attic pottery and trace, as far as possible, the development and changes of shape and decoration that took place during the course of the seventh century. A number of common Proto-Attic shapes are not represented at Phaleron and the decoration of most of the pots is very simple. Nevertheless, it is possible to trace the development of a few important shapes and to fix the approximate date of certain kinds of ornamentation. Employing the evidence as to development and chronology of the Proto-Attic style offered by the Phaleron grave groups we may then perhaps fit some of the more elaborate vases from elsewhere into the Proto-Attic series.

The tendency of the Attic potters of the first half of the seventh century was to make ever taller and slimmer vases. We shall see that cups and skyphoi, as well as amphoras and oinochoai, follow this tendency. Together with the heightening and narrowing of forms came a gradual flattening of curved surfaces. The same tendency at Corinth is visible in the development from the wide and relatively low skyphos with well curved wall of the Early Protocorinthian period to the deep, more pointed skyphos with nearly straight wall of the Middle Protocorinthian. The number of Protocorinthian vases found in Attica from the end of the eighth century onward suggests a quickening of trade relations; the number of vases of Attic fabric, but of Protocorinthian shape, suggests that the Attic potters were strongly influenced by their Corinthian contemporaries.

## CUPS

Two types of cup are represented in the Phaleron cemetery: miniature specimens of varying shape, and deep cups with flaring rim. The former were probably made particularly for the use of children from the late eighth century onward;<sup>11</sup> they have no counterparts among the vases made for normal use. Such cups were made throughout the first half of the seventh century, and into the third quarter; the tendency seems to have been, with the passage of time, to make the body deeper. Our earliest example, 47, 4 (fig. 1), is very shallow. From Grave 70 came two similar cups (fig. 8); one, 70, 2B, is of about the same shape as the cup from Grave 47, while the other is slightly deeper. The cups from Graves 11 and 27 (figs. 13 and 6) are slightly deeper, and the late example of the third quarter of the century from Grave 71 (71A, fig. 22) has become very deep and narrow. Cups of this type are usually decorated simply with a wavy line around the body; comparison of the cups from Graves 47 and 71 will show how the waves became deeper, narrower, and more pointed at the top.

The deep cups with flaring rim are characteristic of the seventh century; so far as I know, none have been found in geometric graves, although the type may go back into the late eighth century. All the examples from the Phaleron cemetery are miniature vases, but they differ from the children's cups in that they are reductions

<sup>11</sup> The earliest examples from approximately datable groups are probably early seventh century: Agora Graves VII and IX, and Dipylon Grave IX, already referred to, p. 26, note 9.

made for the use of children of cups of normal size. An early example from a grave of the beginning of the seventh century is 19, 1A (fig. 4); the body is fairly wide and open in its proportions, and the rim only slightly flaring. From later graves are 56, 1, 25, 1 and 11, 1 (figs. 5, 15, and 13); in them the body has deepened and narrowed at the bottom and the rim has become much more flaring. Still more narrow and pointed are the cup from Grave 18 and one from Grave 48 (figs. 17 and 48, 2B, fig. 19). The cup from Grave 32 (fig. 21) finds a close parallel in a group from the Agora dated in the third quarter of the century.<sup>12</sup> In the same group at the Agora are two more cups of the same type, but later in shape; they find parallels in Graves 71 and 74 (figs. 22-23; 71, 1B and 74, 1B) which contained Late Protocorinthian pyxides of the third quarter of the century. These cups which date after the middle of the century have become shallower and more rounded in the body; a sharply offset lip has replaced the earlier flaring rim, and instead of a flat bottom there appears a low base. With the change of shape after the middle of the century the development of the first half of the century toward deeper, more pointed shapes is reversed; the cups become wide and shallow, keeping the offset lip and gradually heightening the base, which toward the end of the century becomes a ring foot. On late seventh-century examples of this form from Phaleron (18A, 1; 16, 3, and 36, 1; figs. 27, 28, and 26) it is to be noted that the handle rises slightly above the rim. The decoration at all times of these drinking cups is of the simplest; they are usually entirely covered with glaze, with reserved bands inside the rim and barred handles. Cups of this type, and at all stages of development, have been found in numbers in many seventh-century deposits.<sup>13</sup> Two such cups from Mount Hymettos, which bear scratched inscriptions, are interesting examples, one of the earlier seventh-century stage, the other of the development of the third quarter of the century.<sup>14</sup>

#### SKYPHOI

Most of the skyphoi found at Phaleron are of the Protocorinthian type. Two Attic forms, however, are represented: the ordinary subgeometric skyphos, and the lidded skyphos with in-turned rim, or pyxis.

Subgeometric skyphoi are few among the vases from Phaleron, although they have been found in quantities in seventh-century deposits elsewhere. Such skyphoi are the counterparts of the one-handled cups of which we have traced the development and the skyphos underwent the same changes as did the cup. From Phaleron we have in 10, 3 (fig. 9) an early example with shallow open body; it is the counterpart of 19, 1A. During the first half of the century the body became gradually deeper and more pointed; the sole decoration consisted in a reserved band at the handle-zone. Examples from the Agora<sup>15</sup> demonstrate this stage of the development; two

<sup>12</sup> *Hesperia* vii, 1938, p. 413, fig. 1, D6. Later cups from the same group and similar to those from Graves 71 and 74, fig. 1, D7 and D8.

<sup>13</sup> *Hesperia* ii, 1933, p. 562 and figs. 19 and 22, no. 64; *Hesperia, Supplement* ii, p. 155 and fig. 108, C48-50; *Ep.* 1898, p. 58, fig. 4 (Eleusis).

<sup>14</sup> *AJA.* xxxviii, 1934, p. 12, no. 2, and pl. II—early seventh-century; p. 10, no. 1, and pl. I, third quarter.

<sup>15</sup> *Hesperia, Supplement* ii, p. 154 and fig. 108, C45-47; *Hesperia* ii, 1933, pp. 562-3 and figs. 19, 22, and 23; nos. 65 and 79.

Agora skyphoi of the third quarter of the century<sup>16</sup> show that after the middle of the century the skyphos, like the cup, again became wide and shallow, and had a slightly projecting lip instead of a flaring rim. The late examples 16, 1; 17, 2, and 59, 2 (figs. 28, 31, and 30) show that the type was made until the end of the century and into the early sixth. Two more, found in wells on the North Slope of the Acropolis,<sup>17</sup> belong in the sixth century; they are more carefully made, slightly deeper, and covered with glaze of better quality than are the skyphoi of the late seventh century.

Small skyphoi with in-turned rim were found in graves dating from the beginning to the end of the century; there seems to have been little change of shape over this period—56, 2 (fig. 5) and 18A, 2 (fig. 27) are of about the same shape. Almost all the examples from Phaleron have lids; for this reason they are listed as pyxides in Pelekides' catalogue, and probably with some justification. By the end of the eighth century the geometric form of pyxis seems to have disappeared; for a time at the end of the century and in the early seventh century ribbon-handled bowls were made with lids, perhaps to serve the same purposes as had the earlier geometric pyxides.<sup>18</sup> In the seventh century smaller vases replaced the large vases of the geometric period; as at Corinth the pyxides of the seventh century in Attica were very small. A number of imported Protocorinthian pyxides have been noted among the pottery from the graves at Phaleron; the Protocorinthian type, however, does not seem to have been imitated by the Attic potters until the end of the century.<sup>19</sup> The lidded skyphos with in-turned rim was probably the Attic counterpart of the Protocorinthian pyxis.<sup>20</sup> The shape may originally have been Corinthian; a fragment of a late geometric vase of this shape, made of Corinthian clay, was found in the votive deposit at the Agora,<sup>21</sup> and the form does not seem to have been in use in Attica during the geometric period. A small skyphos of this type found in Grave VIII at the Dipylon<sup>22</sup> is very close in shape and decoration to our 48, 7 (fig. 19).

#### SPOUTED BOWLS

One deep bowl with two handles and a spout is published here: 29, 5 (fig. 11) from a grave of the first quarter of the century. Another, now missing, is reported to have been found in Grave 25, a grave dating from around 675. These bowls belong to a class made from the late geometric period to the end of the seventh century. A late geometric bowl in London and the bowl from Aegina by the Nessos painter are early and late examples of this shape.<sup>23</sup> The development that has taken place in a little less than a century is apparent on comparison of the two vases: the deep, rounded body of the early period has become shallow, with sharply curved shoulder

<sup>16</sup> *Hesperia* vii, 1938, p. 413 and fig. 1, D4 and D5.

<sup>17</sup> *Hesperia* vii, 1938, p. 181, no. 27 and fig. 18, AP 968; also p. 216, no. 19 and fig. 49, AP 1086.

<sup>18</sup> *Delt.* vi, 1920–21, p. 132, fig. 2 (Spata Grave I); *JdI.* xiv, 1899, p. 215, fig. 99.

<sup>19</sup> A pyxis of Protocorinthian shape, but of Attic fabric, dated about 600, from a grave at the Agora, *Hesperia*, Supplement ii, p. 23, fig. 9; Grave II.

<sup>20</sup> See Payne's remarks on kotylai with in-turned rim in *Necrocorinthia*, p. 295.

<sup>21</sup> *Hesperia* ii, 1933, p. 563, no. 80, and figs. 22–23.

<sup>22</sup> *AM.* xviii, 1893, pl. VIII 1, 6.

<sup>23</sup> Geometric bowl in London, Hampe, *Frühe griechische Sagenbilder*, pl. 22, below; bowl from Aegina, *CVA.* Berlin i, pl. 46.

and nearly straight lower wall; the earlier vertical ring foot has become very flaring, and the low upstanding rim has almost disappeared; the handle has moved up the shoulder nearly to the opening. Our bowl of the first quarter of the seventh century is clearly more developed than the late geometric bowl in London, which may be about a quarter of a century earlier; it is not as developed as the well-known Proto-Attic bowl from Thebes.<sup>24</sup> A number of bowls of the shape may be fitted into the series; a bowl from Menidi with subgeometric decoration<sup>25</sup> is probably about contemporary with the one from Grave 29, while the somewhat more developed bowl from Thebes must belong in the second quarter of the seventh century.<sup>26</sup>

#### MUGS

Three mugs were found in Grave 48 (fig. 19). The shape is one handed down from the geometric period, and one which disappeared in the seventh century. The three mugs from Grave 48 are among the latest vases of the shape, which seems to have been made only until about the middle of the century. The form has undergone the development characteristic of the Proto-Attic period; it has become tall and thin, the lower body has lost the strong convexity of earlier examples, and the clear definition of parts found in geometric examples has been lost. The latest mug that has been found, dated about the middle of the century,<sup>27</sup> is even taller and slimmer than the examples from Grave 48.

#### OINOCHOAI

Of the many forms of the oinochoe represented in the Phaleron grave groups two may interest us here. Vases like 50, 4 and 33, 6 (figs. 25 and 29) are clearly under the influence of Corinth; vases like 59, 1 (fig. 30) belong rather to the sixth than the seventh century; and 25, 4A (fig. 15) is a sort of hybrid aryballos-oinochoe. The two forms that may interest us are both developed from late geometric forerunners; the first is the normal oinochoe type, with long narrow neck and trefoil mouth, and the second that with a trefoil mouth above a shallow necking.

Two oinochoai of the first form are 19, 6 and 19, 11 (fig. 4), from a grave of the first quarter of the century. The shape is one that began early in the geometric period and continued to be made into the seventh century. A development of the late geometric period was the low, round-bodied form with narrow neck;<sup>28</sup> but the taller, more slender form continued to be made and from it developed the shape characteristic in the seventh century.<sup>29</sup> In the Proto-Attic period the body has become very tall and slim; the neck, instead of being slightly concave, tapers upward and the handle rises higher above the lip. Several good examples of the seventh-century shape have been found at the Agora.<sup>30</sup> The shape resembles that of Early Protocorinthian oinochoai, but is more developed; from Corinth may have come a

<sup>24</sup> *JdI*, ii, 1887, pl. IV.

<sup>25</sup> *JdI*, xiv, 1899, p. 111, fig. 19.

<sup>26</sup> Compare also the fragments *Hesperia*, *Supplement* ii, C97 and 98, figs. 117 and 119; also Berlin A14, *CVA*, Berlin i, pl. 7, 3.

<sup>27</sup> *AA*, 1934, pp. 211-212, fig. 9, dated by Kübler near the middle of the century.

<sup>28</sup> As the Agora oinochoe *Hesperia*, *Supplement* ii, fig. 43, and the inscribed oinochoe from the Dipylon, *AM*, vi, 1881, pl. III.

<sup>29</sup> As the oinochoe *Hesperia*, *Supplement* ii, fig. 67, XX7.

<sup>30</sup> *Hesperia*, *Supplement* ii, fig. 74, and figs. 122 and 125, C 118-120.



widening of the neck to be observed on some Attic oinochoai of the seventh century.<sup>31</sup> Perhaps most typically Proto-Attic, however, are the very tall, elongated oinochoai with narrow necks, found in several of the Phaleron graves of the end of the first and the second quarter of the century. Our 34, 3 (fig. 16) is of nearly the normal subgeometric or seventh-century shape; the other oinochoe from the same grave, and the oinochoai from Graves 32, 48, and 62 (figs. 19–21) are of the tall form with tapering neck that seems to have flourished just before the middle of the seventh century. Because the Proto-Attic oinochoai of this type are abnormal in shape, without sequels in the later Proto-Attic repertory, they are perhaps not so useful for our purpose as vases which undergo a continuous and regular development throughout the century. They serve to illustrate in a striking manner, however, the willingness of the Proto-Attic potters to experiment in vase forms as well as in ornamentation and since we can fix fairly closely their *floruit*, they may be useful for the dating of other vases found with them.<sup>32</sup>

The second form of oinochoe, with trefoil mouth and short necking, began in the late geometric period. A few small examples of the form have been found in early geometric graves:<sup>33</sup> but full-size vases of the shape do not seem to have been made until after the middle of the eighth century. Most of the examples from Phaleron are small vases covered with glaze and simply decorated with reserved bands around the body. Such small vases seem to have been made throughout the seventh century, with little change of shape; there is hardly any difference between the oinochoe from Grave 47, dated around 700, and the one from Grave 78, of the third quarter of the seventh century (figs. 1 and 24). Oinochoai of the same type, but larger in size, were made fairly frequently, and in them we may more easily trace the development of the shape. Two early examples from deposits at the Agora, both decorated with designs in added white,<sup>34</sup> have fairly wide and shallow necking, and plump body; another, slightly later in shape and similar to our 48, 4 (fig. 19), is taller and slimmer, with narrower necking and more flaring mouth.<sup>35</sup> Another oinochoe from the Agora, dated in the third quarter of the century,<sup>36</sup> is taller and slimmer; the necking is very short and narrow, and the trefoil mouth very low and spreading.

#### AMPHORAS

The amphora with balloon body, always simply glazed and decorated with reserved bands around the body and conventional ornament on the neck, is one of the most common shapes found in Attica during the seventh century. Complete and fragmentary amphoras of this type have been discovered in almost every deposit of the period in Attica and examples have been uncovered far afield.<sup>37</sup> In these am-

<sup>31</sup> As, for example, *AA*, 1934, pp. 215–216, fig. 12.

<sup>32</sup> An oinochoe close in shape to our 32, 5 and 48, 3—perhaps a little earlier—was found with the Hymettos Amphora in Berlin: *CVA*, Berlin i, pl. 45, 1; F57.

<sup>33</sup> A small oinochoe of this type is included in an unpublished early geometric grave group at the Agora.

<sup>34</sup> *Hesperia* ii, 1933, p. 592, no. 211, fig. 59 (restored too high); *Hesperia*, Supplement ii, C 123, fig. 127.

<sup>35</sup> *Hesperia* ii, 1933, p. 593, no. 213, fig. 60.

<sup>36</sup> *Hesperia* vii, 1938, p. 417 and fig. 5, D17.

<sup>37</sup> At Daphne in Egypt; in Thera; at Gela in Sicily; in Etruria. See Pfuhl, *MuZ.* i, p. 127; *Hesperia* ii, 1933, pp. 570 ff.; *Hesperia*, Supplement ii, C127, fig. 128, and p. 210.



phoras must have been stored and exported the Attic oil and wine. Seventeen of the urn-burials at Phaleron were made in such vessels. A number of these amphoras are at the National Museum, but they cannot be identified or assigned to the graves from which they came. Two could be identified; fortunately an early and a late example (47, 6 and 33, 8; fig. 2). The contrast in shape between them demonstrates the development that took place during the course of the seventh century; and other amphoras of the type can be fitted into the series by comparison with the early and late examples. The early amphora from Grave 47 has a very plump, rounded body standing on a nearly straight ring foot; its neck is straight, and decorated by a raised ring below the lip. The later amphora is smaller, not quite so bulging in the body, and stands on a very flaring foot; the neck has become slightly concave, and the raised ring below the lip has disappeared. The amphora from Grave 61<sup>38</sup> must be later than the one from Grave 47; the body is slimmer and more pointed, the foot more flaring, and the neck-ring less prominent. An amphora from the Agora found in a group of the third quarter of the century,<sup>39</sup> though very fragmentary, serves to illustrate the trend toward a flaring foot; the handles, too, suggest a low concave neck. The amphora from Grave 33 finds a parallel at the Agora from a grave dated around 600;<sup>40</sup> a sixth-century continuation of the type is illustrated in published amphoras from the Agora and the North Slope.<sup>41</sup> It has been suggested that the early coins of Attica probably bore representations of the amphoras in which oil, the most important Attic commodity, was exported.<sup>42</sup> The balloon-bodied pots, of which seventeen were found at Phaleron, resemble more closely those on the early coins than do any other early Attic amphoras. The wide distribution of these Attic pots beyond the boundaries of Attica itself is sufficient proof that they were exported; the simplicity of their decoration suggests that it was for the sake of their contents, and not of the vases themselves, that they were in demand over so wide an area.

The only elaborately decorated amphora found in the cemetery at Phaleron, 18, 4 (fig. 18) can be dated by the vases found with it at about 675. It has the plump, rounded body and the very slightly flaring foot characteristic of the earlier oil amphoras. In shape as in decoration it is less developed than the more slender and pointed Nessos amphora in the Metropolitan Museum,<sup>43</sup> which must be somewhat later.

#### HOUSEHOLD WARE

In five of the urn-burials at the Agora<sup>44</sup> a pitcher of coarse household fabric was found, in each case standing upright beside the burial urn, at the neck or shoulder. In one case the pitcher was carefully covered by a flat slab of stone laid over its mouth; it perhaps contained a liquid offering of milk or honey made at the time of burial. The custom does not seem to have been followed at Phaleron; no household-

<sup>38</sup> *Delt.* ii, 1916, p. 28, fig. 12.

<sup>39</sup> *Hesperia* vii, 1938, p. 418 and fig. 6, D22.

<sup>40</sup> *Hesperia*, Supplement ii, Grave II; pp. 21 ff. and fig. 8.

<sup>41</sup> From the Agora, *Hesperia* vii, 1938, p. 378, no. 9, and fig. 14; from the North Slope, *ibid.* p. 184, no. 32, and fig. 21.

<sup>42</sup> C. T. Seltman, *Athens, Its History and Coinage*, Cambridge 1924, pp. 7 ff.; the coins, pl. I.

<sup>43</sup> *JHS.* xxxii, 1912, pl. X-XII.

<sup>44</sup> Graves VI-X; *Hesperia*, Supplement ii, p. 17.

were pitchers were found there outside the graves. In one of the shaft graves (Grave 8) a pitcher was found which contained bones; the excavator thought that it had originally stood over the grave and had fallen into the grave-shaft on the collapse of the covering of slabs. Another coarse pitcher was found in a grave built of stone slabs (Grave 55) and two more had been used to cover the openings in the pithoi or amphoras of urn-burials. Pelekides speaks of all four as being similar, and illustrates one.<sup>45</sup> If the four vessels were all of the same shape, they must be dated together and at the end of the seventh century or early in the sixth; one came from Grave 59, which we have seen dated from the beginning of the sixth century, and the one illustrated by Pelekides, from Grave 22,<sup>46</sup> is of a shape which is represented at the Agora in a group of about the same time. Household-ware pitchers of the geometric period and the first half of the seventh century were flattened at the bottom; the earliest round-bottomed pitchers seem to have been made around 600, and the type continued through the sixth and fifth centuries and into the fourth.<sup>47</sup>

Of the same fabric is the hydria from Grave 18A.<sup>48</sup> Hydriai of household ware seem to have been first made just before the middle of the seventh century. The earliest example found at the Agora is, as might be expected, of a tall, slim shape with a low foot and band handle from shoulder to neck. The hydria from Grave 18A is considerably plumper, has a higher foot, and a rolled vertical handle. In shape it is not far from the sixth-century hydriai of household ware from the North Slope wells.<sup>49</sup>

Amphoras were first made of household-ware fabric at about the same time as were hydriai. One example from Phaleron, from Grave 65,<sup>50</sup> is fairly tall and slim in its proportions, and must be dated near the middle of the seventh century.

The pithoi used as burial urns in many of the graves are again of the same fabric, but somewhat coarser and with thicker walls. Ten pithoi are listed by Pelekides as similar to the one from Grave 11 (fig. 12), which is decorated simply with a raised band around the neck. The most elaborate of the pithoi from the Phaleron cemetery was found in Grave 29 (fig. 12); it has two zones of incised decoration. The incision of coarse ware seems to have started late in the geometric period; a pithos from the Dipylon, a coarse pitcher from Eleusis, and several small pots from Anavysos are ornamented with more or less elaborate incised patterns.<sup>51</sup> Incised coarse ware seems, however, to have flourished most in the first half of the seventh

<sup>45</sup> From Grave 22. *Delt.* ii, 1916, p. 31, fig. 21, and no. 14.

<sup>46</sup> If Grave 22 is to be dated at the end of the seventh century or early in the sixth on the evidence of the coarse pitcher found in it, and Grave 59 is to be similarly dated from the other vases of the group, then the inhumation Grave 8, and the slab-built Grave 55, both of which contained similar pitchers, must be closely contemporary. We therefore have further evidence from these coarse vessels that the graves in Phaleron other than urn-burials or pyres are late additions in the cemetery. See above, note 8 (or p. 24 note 8).

<sup>47</sup> Sixth century: *Hesperia* vii, 1938, p. 401, no. 39, and fig. 23. Many fifth-century examples at the Agora have not yet been published.

<sup>48</sup> Not illustrated here; it could not be identified in the National Museum. Illustrated by Pelekides, fig. 19.

<sup>49</sup> *Hesperia* vii, 1938, p. 219, no. 35; fig. 53, AP 1135.

<sup>50</sup> *Delt.* ii, 1916, p. 28, fig. 13.

<sup>51</sup> Dipylon Grave, X: *AM.* xviii, 1893, p. 119, fig. 12; Eleusis, 'Εφ. 1898, pl. 3, 9; Anavysos, *Praktika* 1911, pp. 124-125, figs. 24-29; p. 126, no. 10.

century, the period of greatest experimentation on the part of the Attic potters; by the end of the century it seems to have died out.<sup>52</sup>

Small hand-made pots of pale buff clay, undecorated and unglazed, were found in a number of Phaleron graves. A round aryballoid form and one resembling the conical Protocorinthian oinochoai with narrow necks were the favorite shapes; 27, 5 and 33, 4 (figs. 6 and 29) are of the former type, 47, 2 and 11, 4 (figs. 1 and 13) are of the latter. The fabric has been called Monochrome Argive and assigned to the Argolid.<sup>53</sup> It is abundantly represented in late geometric and orientalizing deposits on many sites. The two small oinochoai 27, 6 and 70, 1 (figs. 6 and 8) are of the same shape and were made by the same technique; the clay of which they are made seems quite clearly to be Corinthian. At Corinth the small Protocorinthian aryballoi were made to contain the Corinthian unguents which were exported all over the ancient world; the small aryballoid vases of the Monochrome Argive type were probably made at a number of places, among them Attica, to contain the local unguents. The little aryballos 36, 4 (fig. 26) is made by hand of clay closely resembling that of the undecorated aryballoi and oinochoai, and its shape is one not uncommon in the Argive Monochrome repertory; yet it bears a decoration of birds and rows of dots that is quite typically Attic.

#### ORNAMENT

Of the ornament used in the decoration of the vases from Phaleron there is perhaps little to be said. Only one large vase with elaborate decoration was found; the rest of the pottery is of a sort that was made in quantity to be sold cheaply. Most of the small vases are subgeometric in decoration, as in shape; many are more or less direct, though careless, copies of the subgeometric vases of the Middle Protocorinthian style. The long continuance of a debased geometric ornamentation is to be expected in a region which, like Attica, had a strong geometric tradition. The survival of geometric motives, hastily and carelessly drawn, through the first and into the second quarter of the seventh century is apparent on such vases as 25, 4A, 34, 3, and 48, 1A (figs. 15, 16, 19), which still show the old geometric zigzags, latticed triangles, bands of sigmas, and step-pattern. Among the vases of the first quarter of the century a few orientalizing motives appear: a simple looped ornament on the front of the bowl from Grave 29 (fig. 11) and a concentric arc decoration under its handle which is often used as filling for the handle-panels of Proto-Attic vases. On one of the oinochoai from Grave 19 (19, 11, fig. 4) there is a griffin-bird which has no ancestor in the geometric style; he resembles strutting birds drawn on Early Protocorinthian aryballoi from Cumae,<sup>54</sup> which date from the latter part of the eighth century.

With the end of the first quarter of the seventh century we begin to find more elaborate orientalizing decoration. The amphora from Grave 18 (fig. 18) bears the same looped decoration as does the bowl from Grave 29, but it is embellished with lozenges inside the loops, which are bound together at the top, and by little trefoil

<sup>52</sup> Seventh-century incised ware from the Agora: *Hesperia* ii, 1933, pp. 597 ff. and figs. 64-69; *Hesperia*, Supplement ii, p. 199, and fig. 139.

<sup>53</sup> Pfuhl, *MuZ.* i, pp. 82-83.

<sup>54</sup> Payne, *PV.*, pl. VI, 5-8.

plants. The simple reversed spiral which appears on 34, 3 (fig. 16) is greatly elaborated in the band below the lip of the amphora. The alternation of glazed and outlined rays and lozenges, and the decoration of the lip show the beginning of a feeling for color contrast which should place this amphora at the head of the "Black and White" style.<sup>55</sup> On the amphora from Grave 18, too, appear the downward-pointed rays to be seen on three small oinochoai (48, 3, 62, 3, and 32, 5, figs. 19-21) from graves of the second quarter of the century, and the floral patterns which also appear on vases from graves of the same date (25, 4A, 34, 2, figs. 15-16; 48, 1B and 48, 4, fig. 19). In addition to the floral patterns, concentric circles (48, 3-4, fig. 19), zones filled with tongues (48, 3; developed perhaps from such step-pattern as appears on 32, 5, fig. 21), and long vertical wavy lines (48, 1C and 62, 3, figs. 19-20, sometimes linked into a continuous cascading ornament, as on 32, 5, fig. 21) seem to have flourished in the years before the middle of the century.

None of the Phaleron vases from graves of the third quarter bear decoration worthy of remark. The cup from Grave 71 (fig. 22) serves, as has been noted, to demonstrate the development in the drawing of the subgeometric wavy line: earlier cups are decorated by lines with long, shallow undulations; later cups by lines with short, deep waves, often peaked at the top and rounded at the bottom. The lidded skyphoi from Graves 62 and 32 (figs. 20-21) bear a wavy line decoration that falls between that of early cups like 47, 1 (fig. 1) and 71, 1A. The shortening of the waves, together with a thickening of the line, increased as the end of the century approached; we may note here the decoration in the handle-zone of 59, 3 (fig. 30). Subgeometric ornament, as well as subgeometric shapes, continued in fact to the end of the century; all of the elements used in the decoration of the oinochoe 50, 4 (fig. 25) are geometric, although a new conception of decoration with relation to surface has influenced their arrangement. The crude silhouette birds that appear at the end of the century on 36, 4 and 18A, 2 (figs. 26-27) are subgeometric in style; they stand at the head of a group of Attic vases of the first half of the sixth century,<sup>56</sup> which had its subgeometric counterpart in Corinth at the same time.<sup>57</sup> Only one vase which might be called black-figured was found in the Phaleron cemetery, in one of the latest graves: 33, 6 (fig. 29).

The Phaleron vases do not greatly help in tracing the development of the Proto-Attic style. By their help, however, we may approximate to a chronology for the more important vases. Our Phaleron groups would indicate a strong geometric tradition at the beginning of the seventh century, together with a tentative experimentation among such of the more simple orientalizing motives as hooks and spirals. At the end of the first quarter appear more elaborate orientalizing and floral patterns, which flourish in the second quarter. The dating suggested by the Phaleron material is rather late; allowance must be made, however, for a lag of the second-rate painters and workshops filling the requirements of a cheap market behind their more ambitious contemporaries. These second-rate painters had neither the skill nor the imagination to try their hands at more elaborate representations; nor

<sup>55</sup> Cook, *BSA*. xxxv, 1934-35, pp. 187 ff.

<sup>56</sup> *CVA*. Oxford iii, pl. XIII, 6; "swan style." An example from the Agora, *Hesperia* vii, 1938, p. 372, no. 4, and fig. 6.

<sup>57</sup> Payne, *NC*, p. 309, D and nos. 965-969; p. 313, II and nos. 1033-1039.



did the requirements of their market or the scope offered for the exercise of their talents by the small vases they had to decorate incite them to any great efforts.

If we follow Cook's classification of Proto-Attic into Early, Middle, and Late styles,<sup>58</sup> and apply to it the chronology suggested by the Phaleron grave groups, allowing a few years for the lag of the second-rate workshops behind the important painters, we must make some slight modifications in his chronology. The vases listed as late geometric<sup>59</sup> belong at the end of the eighth century; some, indeed, in the early seventh.<sup>60</sup> A number of vases of which Cook says "it is hard to decide whether some of the earlier examples are Proto-Attic or geometric"<sup>61</sup> represent the opening phase of the Proto-Attic style in the last years of the eighth century and the first years of the seventh; no doubt they were made at the same time as the latest geometric vases, but by less conservative artists. Their tentative experimentation with simple orientalizing motives—hooks, reverse spirals, spoked rosettes; hounds, lions, and new species of birds—opened the way for the freer experimentation and the more liberal use of orientalizing ornament of the important painters of the Early Proto-Attic style. These early vases are directly in the geometric tradition; most of the motives employed are geometric, and the human figures represented are descended at no great remove from ancestors on geometric vases.<sup>62</sup> The work of the painters of these first Proto-Attic vases is perhaps reflected in such Phaleron vases as 19, 11 (fig. 4).

The Analatos Hydria<sup>63</sup> is hardly more advanced in its figure drawing than an amphora in Oxford of the opening of the Proto-Attic style.<sup>64</sup> Although there is much about it that is geometric—as the decoration of all the zones around the lower body, executed in a careless subgeometric manner—the main zone is given over almost entirely to a lush floral ornament. The focus has changed: whereas formerly the decorative repertory was geometric, and orientalizing motives were merely incidental, now the floral and curvilinear patterns hold the center of attention, and the geometric designs are relegated to places of minor importance. At Phaleron we have found the floral ornament flourishing on the vases of the end of the first and the beginning of the second quarter of the seventh century. The Analatos Hydria can hardly be so late; but it should not be much older than the amphora from Grave 18. We cannot go far wrong in placing the work of the Analatos painter<sup>65</sup> in the decades after the opening years of the century. The krater in Munich, his latest work,<sup>66</sup> probably belongs to the second quarter; the bowl from Thebes<sup>67</sup> is more developed

<sup>58</sup> *BSA*, xxxv, 1934–35, pp. 165 ff.; chronology, pp. 200 ff.

<sup>59</sup> *Op. cit.*, pp. 166 ff.; Select Inventory, pp. 212–213.

<sup>60</sup> On the amphora from the Agora see *Hesperia*, Supplement ii, pp. 55 ff., where the Copenhagen amphora is also discussed; the amphora Athens 897 and other small vases listed by Cook are decorated with hounds coursing hares—an early orientalizing motive which appeared at Corinth with the turn from the first to the second Protocorinthian style; cf. Johansen p. 86. On the grave groups from Spata, see *Hesperia*, Supplement ii, *passim*; Grave VIII at the Dipylon, which contained a skyphos very similar to our 48, 7 is also discussed there.

<sup>61</sup> *Op. cit.*, p. 181; such vases as Cook's figs. 4–8 and pl. 38, a and pl. 47.

<sup>62</sup> Compare the figures of the amphora Cook pl. 38, a with those of the great Dipylon amphora Pfuhl, *MuZ.* iii, pl. I.

<sup>63</sup> Cook, pl. 38, b and 39; *JdI.* ii, 1887, pl. III.

<sup>64</sup> Cook, pl. 38, a.

<sup>65</sup> Discussed by Cook, with attributions, pp. 172 ff.

<sup>66</sup> Cook, p. 174 and pl. 42, b; *JdI.* xxii, 1907, pl. I.

<sup>67</sup> Discussed by Cook, with attributions, pp. 176 ff.



in its drawing than the Munich krater, and later in shape than our bowl from Grave 29; it stands at the head of the "Black and White" style, and if it is to be attributed to the Analatos painter, it brings his work into the second quarter. The Mesogeia painter was a contemporary of the Analatos painter.

Of the Middle Proto-Attic "Black and White" style no vases were found at Phaleron. The amphora from Grave 18, which can be dated with reasonable certainty at the turn from the first to the second quarter of the century, stands at the head of the style. A small cup, perhaps from Grave 48 and now lost,<sup>68</sup> might be included in the "Black and White" style. On it the floral ornament with reserved petals and heavy encircling stems in the handle-zone affords a strong color contrast. A similar plant decorates the back of the Nessos Amphora in New York.<sup>69</sup> On the Nessos Amphora, too, appear the same looped patterns which we have noticed on 29, 5 and 18, 4, but in elaborated form. Figure drawing has advanced, too; the attenuated, synthetic geometric figures, rounded and made into organic beings on the earlier Proto-Attic vases, have now begun to lose their unnaturally tall, thin proportions and to fill out into recognizable humans.

Of the later phases of Proto-Attic no vases were found at Phaleron. They will not be discussed here; Middle Proto-Attic might, however, be divided like Early Proto-Attic into an earlier and a later phase. The earlier phase is represented by the "Black and White" style and expresses the full exuberance of the orientalizing period; it is characterized by the color contrast of black-and-white-painted or reserved surfaces, by the full riot of unrestrained floral decoration and filling ornament, and by the perfecting of the technique of drawing in outline. Its best representative is perhaps the Nessos Amphora in New York. The later phase is best illustrated in the Kynosarges Amphora;<sup>70</sup> here we have a slight gathering-in and relegating of the floral patterns to the sides of the vase, and a thinning of the filling ornament; an interest in incision, and a beginning of the use of purple in addition to white as an accessory color. With the Kynosarges Amphora we can see the path that Attic vase-painting is about to take—the path leading in the end to the black-figured style. Many of the vases of the late seventh century are difficult to assign to a style: they are black-figured in technique, Proto-Attic in spirit.

The development of the Proto-Attic style is difficult to follow because the potters were engaged in experiment. To a strong geometric tradition were added at the end of the eighth century many new ideas and motives; the important influences were from Corinth and the Cyclades. The use of incision, the use of white paint, and the device of drawing in outline were the important innovations; with them came a host of new curvilinear and floral patterns which are, to us, interesting but irrelevant; to the Proto-Attic potters they seem to have been slightly intoxicating. Experimentation by different potters produced a variety of results; but in Early and Middle Proto-Attic the influence of outline drawing held the field. After the middle of the century the Attic potters, under the influence of Corinth, began to develop the technique of incision, which led to the black-figured style. By disregarding the entertaining but distracting forest of orientalizing ornament, however,

<sup>68</sup> *Delt.* ii, 1916, p. 43, fig. 45, 1.

<sup>69</sup> Johansen, p. 116, fig. 60; *JHS.* xxxii, 1912, pls. X–XII.

<sup>70</sup> Cook, pls. 56–58; *JHS.* xxii, 1902, pls. II–IV.

we may follow the steady development and improvement of the vase-painters in the drawing of human figures, lions, and horses from the late geometric to the earliest black-figured style; the progress was steady and sober.<sup>71</sup> While the vases from Phaleron give little to the illustration of this progress, they help in pinning down the dating of its different phases. I append a probable chronology.

- ca. 710-690 - Latest geometric vases (small subgeometric vases continued to be made late into the seventh century) and earliest Proto-Attic (most of the vases listed by Cook as late geometric in his *Select Inventory*, pp. 212-213; vases like his figs. 4-8, and pl. 38, 1 and 47).
- ca. 690-670 - Developed Early Proto-Attic; the vases attributed to the Analatos and Mesogeia painters, and most of the vases listed as Early Proto-Attic in Cook's *Select Inventory*, pp. 213-215.
- ca. 670-650 - The "Black and White" style. Developed outline drawing; the Nessos Amphora in New York.
- ca. 650-630 - The Kynosarges group (Cook, pp. 196 ff.). Thinning of filling ornament, use of incision and purple paint.
- ca. 630-600 - The Peiraeus Amphora and the works of the Nessos painter; early black-figure.

RODNEY S. YOUNG

THE AGORA EXCAVATIONS

AT ATHENS, December, 1938

<sup>71</sup> Cook, p. 171.

## THE ORIGIN OF THE GREEK HERM<sup>1</sup>

THIS study concerns itself with the origin and form of the classical herm as it has been handed down to us in Greek art. In his monograph, *Die antike Herme*, Ludwig Curtius came to the conclusion that it developed out of the marker set up over the grave. The piling up of stones by the wayside in honor of Hermes<sup>2</sup> he compares with the custom of various peoples, notably the Hebrews, of throwing stones on graves as a tribute to the dead.<sup>3</sup> In general, he subscribes to the idea that the herm developed out of an original aniconic sacred stone into the semi-anthropomorphic herm of classical type through the transformation, if I understand his theory correctly, of the grave monument into the cult image of the god of the dead, Hermes, the conductor of souls. This form, as we know from archaeological evidence, was fixed some time in the last quarter of the sixth century and became current on vase-paintings during the last decade.<sup>4</sup> It may, of course, have been in use for some time before it entered the field of art.

There can be no doubt that the gods of Greece were venerated under the form of stones, pillars, and pyramids, and that these rude monuments continued to exist side by side with the fully developed anthropomorphic statue until a late date. For this we have literary evidence, notably that of Pausanias. He saw so many formless objects of worship on his wanderings that he sums them all up, perhaps more categorically than authoritatively, with the phrase: "In the olden times all Greeks worshipped unwrought stones instead of images."<sup>5</sup> To this, Clement of Alexandria adds his testimony.<sup>6</sup> But that in the particular instance of the herm an original rude stone did not persist but was transformed into the herm of classical form and that

<sup>1</sup> R. Lullies, *Die Typen der griechischen Hermen*, gives a very full set of illustrations and a convenient classification. He believes that the herm developed from an aniconic pillar which gradually was given a more human form; later it was stylized in the spirit of a conscious and partial return to the more primitive form. His conclusions seem to me to rest on an incorrect dating of the monuments he cites as evidence.

<sup>2</sup> Curtius, *Die antike Herme*, 1903, p. 10. "Es besteht zwischen Herme und Hermaia eine enge Verwandtschaft. Nicht nur werden die beiden Male dem Hermes errichtet, zuweilen in Verbindung miteinander, und stehen an Wegen: die Herme teilt mit dem Steinhäufen die anikonische Natur. Bilden hier aufgeschichtete Steine ein Kultdenkmal, so lebt dort in dem viereckigen Pfeiler noch der ἀργός λίθος der freilich durch Kopf, Phallus und Seitenansätze zum ἑγχαλμα geworden ist." In an article, "Phallosgrabmal im Museum von Smyrna," *Festschrift Ludwig Klages*, 1932, p. 26, Curtius reiterates his original statement on the origin of the herm, although, as he says, no monument corroborating his theory has come to light on Greek soil in the years intervening between the two publications. Deubner ("Der ithyphallische Hermes," *Corolla Curtius*, p. 202) expresses the opinion that the stone from which the herm developed was not a grave marker, but a sign-post (Wegzeichen) crowning a stone cairn. His theory, too, is evolutionary: "Der Malstein wandelte sich zur Herme." Wilamowitz (*Der Glaube der Hellenen*, p. 159), derives the herm from the cairn and the stone pillar: "Wenn jener zu dem Sitze eines Gottes wird, der die Wanderer auf ihren Wegen . . . schützt, so schützt der Pfeiler das Haus."

<sup>3</sup> Lüffell, *Beiträge zur Geschichte von Montjoie*, pp. 43-53, discusses this custom and cites interesting comparative material.

<sup>4</sup> The black-figured vases depicting the herm, so far as I have been able to check them, all belong to a late phase of that style.

<sup>5</sup> Pausanias vii, 22, 5. τὰ δὲ ἐντι παλαιότερα καὶ τοῖς πᾶσιν Ἑλληνσι τιμὰς θεῶν ἀντὶ ἀγαλμάτων εἶχον ἀργοὶ λίθοι. Cf. Farnell, *The Cults of the Greek States*, i, Chapt. I, "The Aniconic Age."

<sup>6</sup> *Strom.* i, 24, 164 ff.

this transformation took place in connection with the grave is certainly more difficult to prove.

Characteristic of the herm, as Curtius remarks, are the rectangular shaft, the phallos, and the "arms" or side brackets; to which one must add the fully developed bearded head. For it is just this contrast between head and shaft which constitutes the peculiarity of the herm, and which makes it difficult to accept the theory of Curtius. He himself points out that while there is literary evidence of late date <sup>7</sup> connecting the herm with the grave, it is strange that the only actual examples he can produce from Greece itself are two small Thessalian grave stelae on which there are, indeed, herm-like markers with side brackets, but which are not of classical

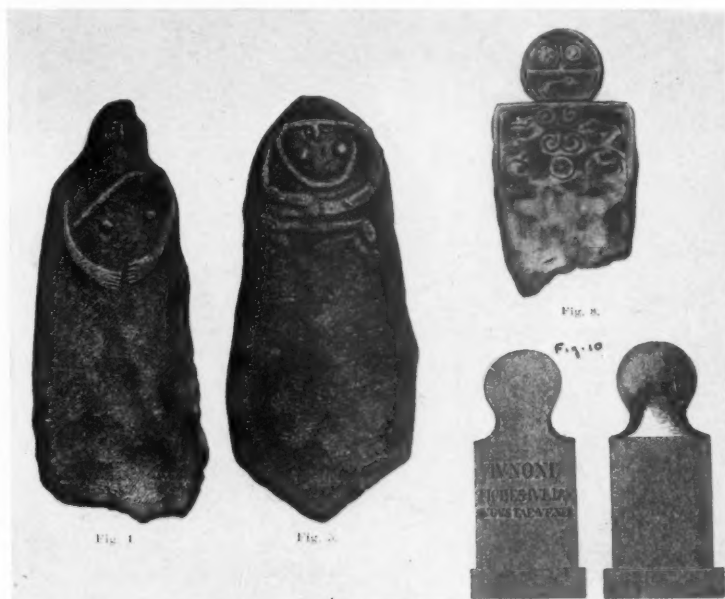


FIG. 1.—PRIMITIVE STELAE, CURTIUS, *Die antike Herme*, FIGS. 4, 5, 8, 10

form, with fully developed head and phallos. To judge by the epigraphy and style, they cannot be earlier than the end of the third century B.C. Of all the Greek states, Thessaly was the one most open to foreign and barbaric influences from the North and it is primarily the barbaric character of the examples gathered by Curtius from various parts of Europe and Anatolia which makes it impossible to accept them as prototypes of the Greek herm. What connection can there possibly be between the severely stylized herm and the repulsively crude dolmès of Collorgnes (fig. 1, left = Curtius, figs. 4 and 5), or the stele covered with geometric patterns and eel-like animals (fig. 1, top right = Curtius, fig. 8), unless we can assume that a very long period

<sup>7</sup> Cicero, *de Leg. ii*, 26, 65 (58). Curtius, *op. cit.*, p. 20: "Hier ist von einem Luxusgesetz die Rede . . . Dieses verbietet Hermen auf Graeber zu setzen. Daraus geht hervor, dass dies zur Zeit des Verbots geschah. Um so merkwürdiger, dass sich bisher in Attika . . . kein Beispiel eines Grabes mit einer Herme hat finden lassen."

of evolution intervened? But none of the monuments can be shown to be of very early date. The Pompeian stelae (fig. 1, bottom right = Curtius, fig. 10) too are late in date. We lack, indeed, transitional monuments in which an emergent anthropomorphism confined to the head alone would form the link between the primitive and the ultimate concept.<sup>8</sup> Nor does the phallos appear on any of the supposed prototypes. Something crudely resembling side brackets, hardly apparent, as Curtius himself remarks, on the only illustration given, is said to characterize grave stelae from Neandria in the Troad.<sup>9</sup> These monuments, however, cannot be dated and are so rude in style that they may have been created locally at almost any time either by the indigenous population or by backward peoples coming into Anatolia from across the straits. Yet it is specifically on these Neandria stones that Curtius based his theory of the origin of the Greek herm.<sup>10</sup>

Eitrem, in his article on Hermai,<sup>11</sup> recognizes the unsatisfactoriness of explaining the herm solely as a grave marker and points in the right direction, I believe, when he says: "Die Herme ist von vornherein nicht Grabmal allein, wie vielfach angenommen wurde, . . . sie war überhaupt ein Phylakterion gegen alle bösen Geister." He recognizes that the side brackets cannot originally have been intended for the use to which they were sometimes put: that is, for hanging up wreaths or acting as sign- or mile-posts.<sup>12</sup> "Vielleicht," he says, "sind sie die verkümmerten Reste der Stangen, wodurch die Herme zu einem Geländer, wie die spätere Verwendung es nahe legt, verbunden wurden." There is, however, no evidence to show that early herms were thus united to form a balustrade and a great deal to show that they were single figures standing by an altar, a door-way, or the wayside.

Leonidas (of Tarentum) thus addresses the rustic herm: "Caves and holy hill of the Nymphs, and springs at the rock's foot, and thou pine that standest by the water; thou square Hermes, son of Maia, guardian of the sheep . . ." <sup>13</sup> If, then, we look for the origin of the herm of classical form, not among the grave monuments and not in the sphere of Hermes Χθόνιος or Ψυχοπομπός, but among the ancient gods of fertility and of the countryside, I think we may be more successful. Hermes, protector of the flocks and of the pastures upon which they graze, has as his companions the phallic gods, Dionysos, Pan, and such lesser spirits of the woods as are depicted by the Pan Painter,<sup>14</sup> and the one to whom Kephalos the hunter offers his libation.<sup>15</sup> The former vase-painting gives the characteristics of the true herm, though in exaggerated form, if one may interpret the black blob of paint on the side as an "arm." The monument on the Kephalos vase is a variant, but also has "arms." <sup>16</sup>

<sup>8</sup> When the god Hermes appears on Corinthian pottery in the seventh century, it is the anthropomorphic form. Payne, *Necrocorinthia*, nos. 39 (Chigi vase), 941, 942, etc.

<sup>9</sup> Koldewey, "Neandria," *Berliner Winckelmannsprogramm*, no. 51.

<sup>10</sup> Curtius, *op. cit.*, p. 17, ". . . was als Vermutung endlich mit einiger Sicherheit ausgesprochen werden mag: Diese Grabstelen von Neandria sind die Urbilder der Herme; die Herme war ursprünglich ein Grabmal" (Italics mine).

<sup>11</sup> Pauly-Wissowa, *RE*, viii, col. 696 f., s.v. *Hermai*.

<sup>12</sup> "Men who pass by me have heaped up a pile of stones sacred to Hermes, and I, in return for their small kindness, give them no great thanks, but only say it is seven stadia more to Goat Fountain." Paton's translation of the *Greek Anthology*, The Loeb Classical Library v, p. 311, no. 254.

<sup>13</sup> *Lc.* i, p. 477, 334.

<sup>14</sup> J. D. Beazley, *Der Pan-Maler*, pls. 2 and 4.

<sup>15</sup> Carl Watzinger, *Griechische Vasen in Tübingen*, p. 41, fig. 2.

<sup>16</sup> For a discussion of all the little gods of woods and field, later identified with Priapos, see Herter, *De Dis Atticis Priapi Similibus*, Bonn, 1926.



Turning now to the rustic Dionysos,<sup>17</sup> we find preserved in Attic vase-painting a form which has all the earmarks of great antiquity. A bearded mask is attached to a post (fig. 2)<sup>18</sup> or shaft (fig. 5)<sup>19</sup> and the whole clothed with garments. On the Makron painting (fig. 5), the costume consists of a chiton and himation, on the Deinos painting, of a chiton and belted sleeveless overgarment. The post is certainly of wood and the shaft is probably of the same material. On a third vase with similar representation the shaft is set in a rectangular base.<sup>20</sup> Now, it is impossible to drape a garment about a slender pole such as is depicted on the vase of the Deinos painter, or even on the shaft of the Makron image, unless some further support is afforded, for it would inevitably slip to the ground. It is quite clear that this support is some cross piece at the level of the shoulders on both vase-paintings, for here the greatest width is indicated on figure 2, and on figure 5 one can just see to either side the ends of side brackets protruding from the drapery. From them sprout the grape vine and ivy branches, and on another vase cakes are attached to the bracket ends (fig. 4).<sup>21</sup> Remove the garment and we have the essential characteristics of the herm: the fully developed bearded head, the stunted "arms" and the shaftlike "body." Indeed, was not this apotropaic figure which protected the vineyards of ancient Greece composed very much like that apotropaic figure of our own fields: the common scarecrow? To be sure, the latter has lost the attributes of divinity, if ever he had them, and is potent only in the sphere of the practical, but his body, like that of his ancient prototype, consists of a pole and cross-bar, from which garments are hung; his apotropaic powers are strong in proportion to his resemblance to man, or, in other words, to his partial anthropomorphism.

What was preserved for later generations in the worship of the rustic Dionysos was once characteristic of many gods, for the custom of weaving garments for statues could only have arisen at a time when the full anthropomorphic statue had not yet evolved. Even the βρέτας of Athena, depicted on vase-paintings, is probably an advance over the original form of the goddess. Pausanias records the use of garments not only for Athena and Hera, but for a number of masculine deities.<sup>22</sup> It is my belief, then, that the side brackets of the herm do not represent rudimentary or stylized arms, but were in origin functional and developed at a time when the primitive statue, pillar, pole or rectangular shaft, was habitually draped, in order to support the garment and keep it from slipping off. We have some evidence that the herm itself was sometimes draped, although drapery was certainly not a necessary or even customary part of its equipment by the end of the sixth century. The late black-

<sup>17</sup> Cf. Wrede, "Der Maskengott," *AM.* 53, 1928, pp. 66 ff.; Frickenhaus, "Lenäenvasen," *Berliner Winkelmannsprogramm*, no. 72, 1912.

<sup>18</sup> Furtwängler und Reichhold, *Griechische Vasenmalerei*, pl. 36; vol. I, pp. 193 ff.

<sup>19</sup> Gerhard, *Trinkschalen und Gefässe*, pl. 4-5; *Wiener Vorlägeblätter*, Series A, pl. IV.

<sup>20</sup> Boetticher, *Baumkultur*, fig. 44; reproduced in Roscher, *Lexikon*, s.v. *Dionysos*, fig. 2.

<sup>21</sup> *CVA.* Italy i, Villa Giulia i, III, lc, pl. 13, 2.

<sup>22</sup> The evidence is collected and discussed in Frazer, *Commentary on Pausanias* ii, pp. 574 ff. Here is the list briefly stated: Olympia—Hera; Athens—Athena; Amyklai—Apollo; Elis—bronze statue of a man called Satrap, some say Poseidon, clothed in garment of linen; Titane—Aesculapius; Samos—Hera; Dodona—Dione; Athens—Artemis Brauronia; Aegium—Ilithyia; Magnesia on the Meander—"the twelve gods clothed in finest clothing and carried into the market place" (the fact that these were carried in procession suggests that the body was in the shape of a pole).



FIG. 2.—KRATER IN NAPLES



FIG. 3.—OENOCHOE IN FRANKFURT A.M.



FIG. 4.—STAMNOS IN ROME



FIG. 5.—KYLIX IN BERLIN BY MAKRON AND HIERON

figured vase (fig. 3)<sup>23</sup> shows us a herm of classical type, with drapery over the shoulders and resting on the brackets. It is further interesting to note that the cult image, consisting of pole or shaft with cross-bar or brackets, to which mask and garments were added, would, when stripped of all these accessories, have looked very much like the mast of the ship on which the peplos of Athena was stretched and carried to the Acropolis. I note the resemblance but do not feel that it is possible to establish a definite connection. The form of the mast may have significance, as embodying the original appearance of the goddess herself, but it is difficult to prove.

The mask was not originally used solely for Dionysos. The orator Hyperides<sup>24</sup> tells us that Dodonian Zeus, apparently voicing the annoyance of the priests at the shabby appearance of the image of Dione, ordered the Athenians, through an oracular response, to send her a new dress, ornaments and a πρόσωπον, a countenance or, in other words, a mask.<sup>25</sup> Now Dodona was a great and very ancient shrine and Dione ranked among the old and august goddesses. Rhea and Themis were her contemporaries and companions. Sometimes she is known as the mother of Dionysos, sometimes of Aphrodite.<sup>26</sup> She is so old and venerable that she is half forgotten and Hesiod does not mention her among the consorts of Zeus.<sup>27</sup> Here, then, we have the combination of mask and garment, attested for one of the oldest deities.

But it still remains to justify the attribution to the rustic Hermes of those ancient aspects of the sacred image which we know to have survived in Dione of Dodona and in the rustic Dionysos. Here, religious tradition, poetry, and vase-painting come to our aid and show clearly how closely the two gods are associated and how their iconic forms were sometimes merged in one. In the Kabeiric mysteries of Samothrace, the fourth Kabeiros, Κάσμιλος, is identified with Hermes: "μνοῦνται δὲ ἐν τῇ Σαμοθράκῃ τοῖς Καβείροις . . . ὁ δὲ προστιθέμενος τέταρτος Κάσμιλος ὁ Ἑρμῆς ἐστίν, ὡς ἱστορεῖ Διονυσόδωρος."<sup>28</sup> The identification of Kasmilos with Hermes is also mentioned by Kallimachos.<sup>29</sup> In Thebes, however, the older Kabeiros is identified with Dionysos. Here, too, Hermes is intimately connected with the birth legend of Dionysos. In an epigram from the island of Lesbos,<sup>30</sup> Hermes is called upon to bring the blessings of abundant yield to the vineyard, of which Dionysos,

<sup>23</sup> A.A. 25, 1910, p. 457, Abb. 1. "Auf einem zweistufigen Postament erhebt sich die Herme des bärtigen Gottes, mit leicht eingeritztem Gewand bekleidet."

<sup>24</sup> Hyperides iii-xxv: ὅμιν γὰρ ὁ Ζεὺς ὁ Δωδωναῖος προσέταξεν ἐν τῇ μαντείᾳ τὸ ἀγαλμα τῆς Διῶνῆς ἐπικοσμήσαι καὶ ὑμεῖς πρόσωπόν τε ποιησάμενοι ὡς οἶόν τε κάλλιστον καὶ τᾶλλα πάντα τὰ ἀκόλουθα, καὶ κόσμον πολὺν καὶ πολυτελῆ τῇ θεῷ παρασκευάσαντες, καὶ θεωρίαν καὶ θυσίαν πολλῶν χρημάτων ἀποστείλαντες, ἐπεκοσμήσατε τὸ ἔδος τῆς Διῶνῆς ἀξίως καὶ ὑμῶν αὐτῶν καὶ τῆς θεοῦ.

<sup>25</sup> For the equating of πρόσωπον = προσωπεῖον, see Liddell and Scott.

<sup>26</sup> Nauck, Euripides, *Frag.* 177.

<sup>27</sup> H. J. Rose, *Handbook of Greek Mythology*, p. 53: "There is one consort of Zeus, very probably the oldest of all, whom Hesiod omits from his list, namely Dione. He knows her name indeed, but only as an Okeanid, and nowhere says anything about her marriage with Zeus. But Homer has heard of her as mother of Aphrodite, who is invariably daughter of Zeus in his poems; therefore he must know of the union between Zeus and Dione. . . . At Dodona, but scarcely anywhere else, the divine couple were regularly worshipped."

<sup>28</sup> Schol. Apoll. Rhod., A, 917 (C. Wendel).

<sup>29</sup> Serv. Gram. in Verg. *Aen.* xi, 543.

<sup>30</sup> Kaibel, *Epigrammata*, 812, Ad Plagiam Lesbi insulae oppidum. Conze, *Itin. Insul. Thrac.*, Tab. XVI-I. [Ζ]ηνὸς καὶ Μαίας ἐρικυδέος ἀγαλὸν Ἑρμῆ[ν] εὐκάρπρον [στ]ῆ[σ]εν [τ]ό[ν]δε [ἐ]πὶ φυταλῆς Βάκχων Ζωοῦς υἱ[ὸς] ὅπως ῥαδ[ι]νῇ διὰ παντὸς ἀμπελος ὥραιοι καρπὸν ἔχη βοτρώων. ἀλλ' Ἰλαος, ἀναξ, Ζωοῦς γένος εὐφροني θυμῷ σῶιζε, διδούς αὐτοῖς ἀφθονον ὄλβον ἀεί.

as god of wine, is the indwelling spirit. And who would not identify the image on the vase-picture (fig. 6)<sup>31</sup> as Dionysos if he did not see the staff of Hermes in his left hand? For the image wears a headdress characteristic of Dionysos, similar to that crowning the mask on the vase of the Deinos painter (fig. 2), a Dionysiac embroidered robe, and he holds in the right hand the cup of the god of wine, while a satyr dances behind and a cloaked Maenad stands before him. Here, indeed, we seem to have the merging of the two deities in a single rustic statue. Gerhard, in his *Über Ursprung, Bedeutung und Anwendung der Hermen*,<sup>32</sup> an essay full of acute observations, emphasizes the strong Dionysiac element in the herm. "Vielmehr drängt bei unbefangener Betrachtung dieser . . . Hermen die Ansicht sich auf als möge dem Gott der ihrer Bildung den Namen gab nur ein kleiner Theil bärtiger Hermen angehören . . . während die grössere Zahl jener fraglichen Hermen wahrscheinlich dem Dionysos gehört." The very fact that the caduceus is painted on the side of some examples (fig. 7)<sup>33</sup> shows that the identification of the herm was not always certain and could not be taken for granted, otherwise the symbol of the god would have been unnecessary. The herm of figure 8,<sup>34</sup> for instance, I take to be a Dionysos and the spotted object on the breast a stylized nebris.

In an article, *Statuen auf Vasenbildern*,<sup>35</sup> Schefold reproduces an exceedingly interesting scene on a red-figured loutrophoros (fig. 9). A herm stands behind an altar at an open door which is approached by a wedding procession led by a flute-player. Schefold comments upon the fact that rarely, as in this case, are herms made larger than the people who surround them, that the head, seen frontally, has the uncanny look of the Dionysiac masks and that it seems alive with daemonic fire. He thinks that the vertical lines of thinned glaze delimit the sides of the herm which must be thought of as turned forward like the leaves of a triptych, in a curious experiment in perspective, which represents sides and front as if in one plane.<sup>36</sup> If, however, we study the treatment of perspective in paintings approximately contemporary with this vase and all still of the fifth century (fig. 10),<sup>37</sup> we see at once that the Greek vase-painter had, in reality, much more advanced ideas about perspective and that, whatever the shortcomings and mistakes of his treatment, he always makes an effort to differentiate planes. He knows that the two sides of a rectangular object are not visible simultaneously with the front (fig. 10, 1 and 2). It seems to me quite clear that what the vase-painter wished to depict was not the sides of the shaft, but a cloak or drapery falling to the base. Schefold's description seems to me to lead di-

<sup>31</sup> Rumpf, "Die Religion der Griechen," *Bilderatlas zur Religionsgeschichte* 13-14, fig. 67, from *Monumenti Antichi dei Lincei* xiv, pl. 56 (Orsi). <sup>32</sup> Gerhard, *Archäologischer Nachlass*, p. 217.

<sup>33</sup> CVA. Denmark 6, Copenhagen 6, IVc, pl. 233, 2a-b.

<sup>34</sup> Lenormant, *Élite des monuments céramographiques* iii, pl. LXXIX.

<sup>35</sup> *JdI*, lii, 1937, p. 57, fig. 17. Lost loutrophoros.

<sup>36</sup> *Ibid.*, p. 56: "Die Herme ist dämonischer belebt als alle betrachteten Statuen auf Vasenbildern. Ganz selten sind Hermen wie hier grösser als die umgebenden Menschen gebildet, nie so streng von vorn gesehen wie die unheimlichen Masken mit ihrem den Beschauer bannenden Blick, wie der Dionysos der Françoisvase. Das grosse Glied auf der weissen Vorderfläche wird noch hervorgehoben durch die Seitenflächen, die, mit verdünnten Firnis bemalt, verkürzt mit dargestellt sind. Obwohl die Vase erst im Anfang des peloponnesischen Krieges gemalt ist, gehört sie noch ganz der alten grossen Zeit an."

<sup>37</sup> Fig. 10, no. 1: Trendall, *Frühitaliotische Vasen*, pl. 17a. No. 2: *ibid.*, pl. 9. No. 3: Pfuhl, *MuZ.*, no. 550 (white ground lekythos). Nos. 4 and 4a: *ibid.*, no. 562 (epinetron of the Eretria Master).



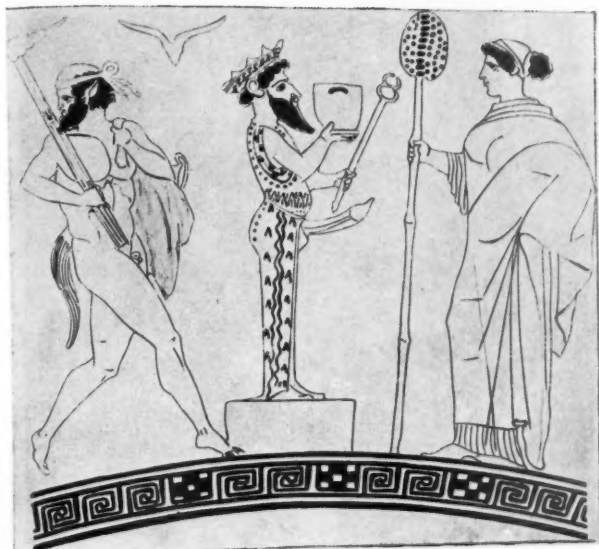


FIG. 6. — KRATER FROM GELA



FIG. 7. — KRATER IN COPENHAGEN

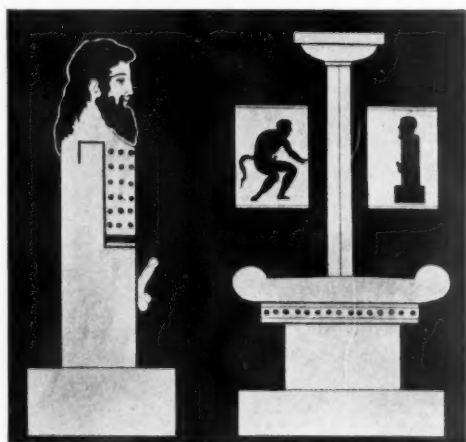


FIG. 8. — RED-FIGURED VASE FORMERLY IN HAMILTON COLLECTION



FIG. 9. — LOST LOUTROPHOROS



rectly to a conclusion which, however, he himself does not reach and there are details which he has not observed. This is no ordinary stone herm, such as stood beside Athenian door-ways. The shaft is of wood, a roughly trimmed tree-trunk, as is shown by the side brackets. They are circular, instead of rectangular, and are nothing more than the chopped-off ends of branches. From the shoulders sprouts foliage and the head, as Schefold remarked, resembles nothing so much as a Dionysiac mask. The herm is approached by a wedding procession, headed by a flutist, and a young girl carrying a loutrophoros follows; then come a female torch-bearer leading a child, a dancer and a second torch-bearer leading the bride. A cloaked woman brings up the rear. The procession is closely paralleled on a loutrophoros in Athens. No bridegroom appears in the procession,<sup>38</sup> and yet he may be present, symbolically at least, in the wooden image at the altar. For this procession is not approaching the door of a secular house—the unique character of the wooden herm, the awe-inspiring character of the countenance, make this clear—but of a sacred precinct or temple.

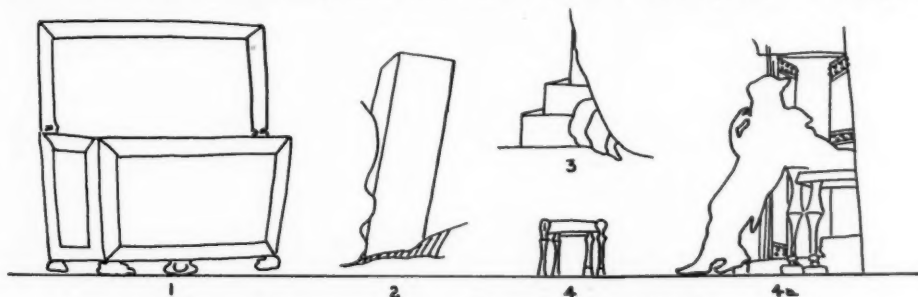


FIG. 10.—PERSPECTIVE IN LATE FIFTH-CENTURY VASE-PAINTING

The god whose face is a mask, who wears a garment, and from whose shoulders sprouts foliage (cf. fig. 2), can be no other than Dionysos and, more specifically, in connection with a wedding procession, the Dionysos of the mystic marriage: the *ἱερός γάμος* between the Basilinna, the wife of the king archon, and the god himself.<sup>39</sup> The elements of which the figure is composed are characteristic, as we have seen, not of Hermes, but of Dionysos, and no other god could the wedding procession so fittingly approach. Dr. Margarete Bieber, in her discussion of the frescoes of the Villa Iton at Pompeii,<sup>40</sup> which she interprets as brides being initiated into the Dionysiac mysteries, suggests that at Athens the initiation took place under the direction of the Basilinna. I am not the first to propose a herm for the Dionysos of the mystic marriage. Van Hoorn<sup>41</sup> accepted a herm in principle, although he had

<sup>38</sup> Schefold is certainly mistaken in identifying the flutist and the girl carrying the loutrophoros as bride and bridegroom. This would necessitate transferring the title of bride from the majestic cloaked figure with bent head (cf. the vase illustrated in Deubner, *Attische Feste*, pl. 19), to the girl who walks before her. That a bridegroom would play the flute in his own wedding procession is more than improbable.

<sup>39</sup> There is a great deal of literature on this subject. Much of it is quoted in Deubner, *Attische Feste*, and Buschor, "Ein choregisches Denkmal," *AM.* 53, 1928, pp. 96 ff.; Nilsson "Die Prozessionstypen im griechischen Kult," *JdI.* xxxi, 1916, pp. 309-339.

<sup>40</sup> Bieber, "Der Mysteriensaal der Villa Iton," *JdI.* xliii, 1928, pp. 298 ff.; "The Mystery Frescoes in the Mystery Villa of Pompeii," *The Review of Religion*, 1937, pp. 3 ff.

<sup>41</sup> Van Hoorn, "L'Idole de Dionysos Limnaïos," *RA.* 25, 1927, pp. 104 ff. He suggests that the herm was laid beside the Basilinna. We know nothing of the details of the ceremony of mystic union. He

no definite illustration to offer. An image so primitive that it is not so much the work of a sculptor as an assemblage of diverse parts, meets the objection of Pfuhl<sup>42</sup> that the Dionysos could not have been a statue because it goes back to a period antedating sculpture.

It is not necessary to think of the bride of the wedding procession as the Basilinna herself, nor can the procession be successfully localized; for the loutrophoros suggests the trip to the Enneakrounos, and the herm, altar, and door the arrival at the house of the bridegroom. The vase depicts not so much a definite moment in a given ceremony as the whole course of the marriage, from its preparation, symbolized by the loutrophoros of the bridal bath, to the consummation, symbolized by the Dionysos of the *ἱερὸς γάμος*. Thus the cycle of our evidence is completed. This Dionysiac figure takes us back to a time far more ancient than that in which the herm first appears on vase-paintings. It is the archetype of both the classical herm and of the Dionysiac image with mask and cloak;<sup>43</sup> for here the brackets are not mechanically added, as they must have been in the case of a pole or pillar, but are part of an original tree-trunk.<sup>44</sup>

I shall now sum up briefly the conclusions reached in this study. The herm of classical form was not the end product of a long evolution starting from an aniconic sacred stone, an evolution for which it is impossible to find satisfactory evidence,<sup>45</sup> nor was it an entirely new creation. It was the adaptation to stone sculpture, and for a new purpose, of a type which had long dotted the countryside and which had found its most important embodiment in the Dionysos of the mystic marriage. It consisted of wooden shaft, brackets, a mask, and garment. Doubtless the fine garments were not worn at all times by statues standing in the open and exposed to the inclemencies of the weather, so that the undraped shaft was a familiar sight. If, as now seems evident, the type was originally created for Dionysos and transferred from him to Hermes, the phallic symbol finds its natural explanation. Ancient authorities agree in attributing the origin of the classical herm to the Athenians. Herodotus tells us that the herm came to the Athenians from the Pelasgians,<sup>46</sup> thus attesting its great antiquity, and that the Greeks as a whole took it over from the Athenians. Pausanias tells us that the Athenians invented, not the herm itself, but its rectangular form.<sup>47</sup> In the transposition from wood to stone this is just the change which would naturally be made; for in stone it is less laborious to produce a rectangu-

suggests tentatively that a herm on an oinochoe (his pl. iv) may represent the Dionysos, but adds that it may equally well represent Hermes. This youthful, beardless herm, with no Dionysiac attributes, which is approached by a child with a toy, cannot possibly be the venerable and secluded god of the Boukoleion.

<sup>42</sup> Pfuhl, *De Atheniensium Pompis Sacris*, p. 70.

<sup>43</sup> Petersen, "Lenäen oder Anthesterien," *RhM.* 68, 1913, pp. 239 ff., identifies the pillar and mask god with Dionysos of the sacred marriage.

<sup>44</sup> The image of Dionysos, brought annually from Eleutherae to Athens, was also of wood; Pausanias i, 38, 8. The Theban Dionysos was a "ξύλον ἐξ οὐρανοῦ"; Pausanias ix, 12, 4.

<sup>45</sup> My attention was drawn to the article by J. F. Crome, "ἹΠΠΑΡΧΕΙΟΙ 'ΕΡΜΑΙ," *AM.* lx-lxi, 1935-36, pp. 300 ff., after this paper was written. I agree with his thesis that the herm did not develop from an aniconic form. Otherwise our views have little in common.

<sup>46</sup> Herodotos ii, 51: ἀπὸ Πελασγῶν πρῶτοι μὲν Ἑλλήνων ἀπάντων Ἀθηναῖοι παραλαβόντες παρὰ δὲ τούτων ὅλλοι.

<sup>47</sup> Pausanias iv, 33, 3: Ἀθηναίων γὰρ τὸ σχῆμα τὸ τετράγωνόν ἐστιν ἐπὶ τοῖς Ἑρμαῖς, καὶ παρὰ τούτων μεμαθήκασιν οἱ ἄλλοι.

lar than a circular form. And if this was done in the time of Hipparchos and under his direction,<sup>48</sup> the earliest appearance of herms on vase-paintings would coincide with the multiplication and spread of herms throughout Attica.

A few words should be added concerning the meaning of ἔρμα. It is generally interpreted as either an ordinary stone,<sup>49</sup> or as the upright stone marker crowning the stone heap.<sup>50</sup> I think, however, that a good case can be made for considering the original meaning to lie in the idea of upright, what is in itself upright or what maintains upright or supports, rather than in the material of which such uprights were frequently made, namely a stone. The first definition given in Liddell-Scott is, "prop, support." As attached to the stone the meaning is derivative and secondary. The following literary passages seem to support this interpretation:

*Iliad* i, 485 ff.:

νῆα μὲν οἱ γε μέλαιναν ἐπ' ἡπείροιο ἔρυσσαν  
ὑποῦ ἐπὶ ψαμάθοις, ὑπὸ δ' ἔρματα μακρὰ τάνυσσαν

Nowadays in Greece and in general in the eastern Mediterranean, small ships beached on the shore are as a rule supported from either side by long wooden props, not by stones.

Plato, *Leg.* 737: καὶ τοῦτο μὲν οἷον ἔρμα πόλεως ἡμῖν κείσθω τὰ νῦν (Translated by R. G. Bury in Loeb Classical Library: "So let this stand, fixed for us now as a kind of pillar of the state").

Chrysippus, *Stoic* 2-229: τῆς ψυχῆς ἐχούσης ἔρμα.

The form ἐρμῖν or ἐρμῖς, in the sense of a bed-post, and thus a thing that is itself upright, occurs twice in the *Odyssey*:

8,278: ἀμφὶ δ' ἄρ' ἐρμῖσιν χέε δέσματα κύκλῳ ἀπάντη

23,198: ἐρμῖν' ἀσκήσας, τέτρηνα δὲ πάντα τερέτρῳ

Galen 19,208: ὥσπερ ἔρματος ἀεὶ δεόμενοι τῆς τροφῆς.

Herodotos vii, 183: τῶν δὲ δέκα νεῶν τῶν βαρβάρων τρεῖς ἐπήλασαν περὶ τὸ ἔρμα τὸ μεταξὺ ἐὼν Σκιάθου τε καὶ Μαγνησίης, καλεόμενον δὲ Μύρμηκα.

ἔρμα in this passage is frequently translated as "sunken stone," which is correct from the point of view of the navigator. It may equally well be thought of, however, as a rock which stands upright or protrudes from the ocean bed.

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<sup>48</sup> Pseud. Plato, *Hipparchos*, 228 c, ff. The most significant passages read: ἔστησεν αὐτοῖς Ἑρμᾶς κατὰ τὰς ὁδοὺς ἐν μέσῳ τοῦ ἀστεος καὶ τῶν δήμων ἐκάστων . . . ἐν μὲν τοῖς ἐπ' ἀριστερὰ τοῦ Ἑρμοῦ ἐκάστου ἐπιγέγραπται λέγων ὅ Ἑρμῆς ὅτι ἐν μέσῳ τοῦ ἀστεος καὶ τοῦ δήμου ἔστηκεν. . . . Suidas, Ἑρμαῖ: ἐκαλοῦντο δὲ τινες καὶ Ἱππάρχαιοι Ἑρμαῖ ἀπὸ Ἱππάρχου τοῦ Πεισιστράτου. Harpokration, Ἑρμαῖ: ὅτι δὲ ἐκαλοῦντο τινες καὶ Ἱππάρχαιοι Ἑρμαῖ ἀπὸ Ἱππάρχου τοῦ Πεισιστράτου, εἴρηται ἐν τε τῇ ἀρχαίᾳ Κωμωδίᾳ καὶ παρὰ Πλάτωνι ἐν τῷ Ἱππάρχῳ.

<sup>49</sup> Wilamowitz, *Glaube der Hellenen*, p. 59: "Von dem Steinhäufen und den Steinfeiler müssen wir ausgehen."

<sup>50</sup> Curtius, *op. cit.*; Deubner, "Der ithyphalische Hermes," *Corolla Curtius*.

## CORINTHIACA

### I. THE MONTH PHOINIKAIOS

DESPITE the city's great area, now evident,<sup>1</sup> and its copious remains, and despite its historical importance, "it is impossible to compose even in outline a continuous history of Corinth."<sup>2</sup> Literary sources are scant. Epigraphical sources are scantier: some thirty years of excavating (1896-1927) produced only about 60 inscriptions from the whole Greek period down to 146 B.C. and more recent excavations have added but few. Hardly any of these have provoked much discussion, many are mere chips; yet a little additional information can perhaps be extracted from the inscriptions which have been published.<sup>3</sup>

*Cor.* viii, 1, no. 1. Meritt correctly adds to this archaic boustrophedon text a part of the kappa in the first word on Face A.—Less certain is an alleged variant form of the Corinthian sigma which, had it been noticed, might plague students of epichoric alphabets. It is claimed that the regular M has a "small inset stroke" added to the last hasta, giving  $\mathfrak{M}$  on Face A. On Face B, in a retrograde line, the same sort of stroke has been read as part of a letter which is split by the broken edge of the stone, so that only  $\mathfrak{V}$  remains; and consequently this letter has been identified as a sigma. The form  $\mathfrak{M}$  is unknown elsewhere.<sup>4</sup> The two instances claimed in this inscription are not precisely alike; although it does happen that the "inset strokes," properly speaking, are on the same side of the letter, the one on Face A is higher than that on Face B. Close inspection of the stone, of the photograph in *AJA.* vii, 1903, p. 154, fig. 4, and especially of a squeeze shows that both "small inset strokes" lack the precisely cut surfaces which are characteristic of true strokes, but instead are rough accidental breaks. On Face A, the letter, which is fully preserved, is therefore a sigma of regular form. The broken letter on Face B can be alpha, delta, lambda, mu, nu, or (?) rho, as well as sigma.—The first letter on Face B might be a rough breathing, or, as Dickerman said, sigma; but the spacing favors Meritt's choice, tau.—The small round interpunct shown in the drawing of Face A, but not in the text, is spurious: the squeeze and Dickerman's photograph settle this.

The monument has been described as a "pillar" or a "stele." Both preserved faces, however, have lines which run parallel to the top; if the block had been thin enough to be a stele, the lines on one face would have been more likely to run ver-

<sup>1</sup> R. Carpenter, A. W. Parsons, and A. Bon, *Corinth, Results of Excavations* iii, 2, *The Defenses of Acrocorinth and the Lower Town*.

<sup>2</sup> M. L. W. Laistner, *History of Greece from 479 to 323 B.C.*, p. xiv.

<sup>3</sup> Most of the readings were made in odd moments while I was at Corinth for excavations in the autumn of 1934; I have waited in the hope of working there soon on certain other inscriptions. Unless the contrary is stated, I have verified all the readings in these notes once more from a set of squeezes which I made in 1934. Professor A. D. Nock and Dr. H. Bloch have read and improved this paper.

Any studies like the present are bound to be critical of their predecessors, necessarily passing over much that is sound; but anyone who knows the subject at all will realize my obligations to Kendall K. Smith's article in *AJA.* xxiii, 1919, pp. 331-393, and to Benjamin D. Meritt, *Corinth, Results of Excavations Conducted by the American School of Classical Studies at Athens*: viii, Part 1, *Greek Inscriptions 1896-1927* (Cambridge, Mass., published 1931), which is abbreviated herein *Cor.* viii, 1.

<sup>4</sup> But in Coreyra in one instance a misplaced stroke gives  $\mathfrak{V}$  (Roehl, *Imag.* 3, p. 46, no. 21).

tically. Probably the lines were fairly long and the block was squarish, part of a large monument. Hence Face A is not necessarily the beginning of the text, and the absence of a main heading on Faces A and B strongly suggests that some other face—there were in all doubtless four or three inscribed faces—bore the first section.

In line 1 of the decree *Cor. viii, 1, no. 2*, following the dating by the magistrate, are the letters Φοινικαίου, then six spaces left blank so that the body of the decree could begin with line 2. O. Kern, *Inscriptionen von Magnesia*, no. 44 is a decree of Corcyra dated in the month *Phoinikaios*, and K. K. Smith (*op. cit.*, p. 338) was indubitably right in recognizing in the decree of the mother-city *Cor. viii, 1, no. 2* the same name for a month.

The slight text of the present inscription, no. 1, leaves no doubt that the document pertained to cult. Meritt suggested that the same name for a month, *Phoinikaios*, be restored as the first word in Face A; the form would be Φοινικ[αίο]. Possible alternatives are Φοινικ[ι] and Φοινικ[αί]. These deities will be discussed presently: either is admissible, and the reason for preferring the name of the month is that such a restoration fits the familiar scheme of *fasti sacri*, in which the entries are usually arranged under monthly rubrics.<sup>5</sup> These three restorations, moreover, exhaust the number of plausible restorations. As will appear presently, a choice between them is not important. The text is boustrophedon, beginning, on each of the faces, in the upper right corner. In conjectural skeleton form the text is as follows:

	[Face missing.    Heading, etc.]				
Face A.	←	Φοινικ[αίο]	day	- deity	victim(s)
	→	[	day	(chthonic?) deity	τέτο]ρες χο
	←	ἵπο!	day, etc.		
		[several lines missing]			
Face B.	←	[			]ται
	→	κε <sup>h</sup>			
	←	h			
		[several lines missing]			

[Face missing?]

The important point is that *Cor. viii, 1, no. 2*, which preserves all the letters, gives us the month *Phoinikaios* at Corinth, a fact which hitherto has escaped comment. In the hands of F. K. Movers, E. Curtius, or V. Bérard, this new month-name at Corinth itself would have become a potent argument for Phoenician influence there: for a Phoenician colony intermarrying with the Greeks and eventually constituting an important element of Corinth.

The nomenclature of months is apparently post-Hesiodic, hence as we now see, Corcyra probably acquired the month-name *Phoinikaios* from its mother-city

<sup>5</sup> It is notable that the stone was found some 25 m. from the temple of Apollo; and that it had not been moved far recently, since according to Dickerman it was found at a depth of 1.5 m. Suckling pigs were regularly an offering to underworld deities, but inclusive *fasti sacri* may well have been set up near the temple of Apollo.



Corinth after 734, the traditional date of the founding of Corcyra.<sup>6</sup> Doubtless it was directly from Corinth that Ambrakia, a colony founded by a son of Kypselos, also adopted the name Phoinikaïos for a month.<sup>7</sup>

Until a much later period, when honorific month-names were created to express gratitude to, or the desire of benefits from, states or individuals, months were never named for persons. Meritt's restoration of Phoinikaïos in no. 1 shows that this month-name was probably in use as early as the first half of the fifth century. If this restoration in no. 1, and hence the positive evidence for an early date, be rejected, nevertheless there is no reason whatever for believing that the Corinthians honored the Phoenicians in the Hellenistic period. It is therefore excluded that the month-name Phoinikaïos should have been derived directly from the Phoenicians. Without any exception known to Nilsson, all early month-names are derived from the names of festivals, which indeed calendars were instituted to regularize.<sup>8</sup> The discovery of one or two exceptions would not seriously affect the principle, since about 100 early month-names are known and nearly all of them count as positive instances. Hence the month Phoinikaïos must be the month during which was celebrated in Corinth and at least some of her colonies a festival, otherwise unknown, τὰ Φοινικάια.

The number of deities known to have received some sort of cult in Corinthia in all pre-Christian periods amounted to 104 when they were last listed.<sup>9</sup> It is likely that we know only a fraction of the original number of deities, including all lesser heroes and heroines, who received cult ante-146 B.C.,<sup>10</sup> and it may be that some few important cults, important enough to give their names to months, are unknown. Thus conceivably there was a cult of Phoinix at Corinth which, though important, has remained unknown. A hill at Corinth was called Φοινικάιον.<sup>11</sup> This cannot have been named for (an otherwise unknown) Phoinix, since the masculine gives a different form of adjective.<sup>12</sup>

The hill Phoinikaion has usually, however, been associated with a goddess Athena Φοινίκη, attested for Corinth by two obscure sources. The scholiast to Lykophron, 658, δελφινόσημον κλωπὰ Φοινίκης θεᾶς writes: Φοινίκη δὲ ἡ Ἀθηνᾶ

<sup>6</sup> M. P. Nilsson, "Die Entstehung und religiöse Bedeutung des griechischen Kalenders," *Lunds Universitets Årsskrift*, N. F. Avd. 1, xiv, 2, 1918; and generally A. D. Nock, *Gnomon* 10, 1934, p. 293. Cf. Bischoff in *RE*. Halbbd. 20, col. 1573.

<sup>7</sup> The seven known names of months in Corinth and her Balkan colonies are tabulated in *RE*. 20, col. 1592: the six cities probably had closely similar calendars, but the evidence, which shows no divergence, is thin. Syracuse and Tauromenion (*RE*. 20, col. 1593) show several divergencies, which are such as to suggest that the festivals were celebrated but not regularized chronologically before 734 B.C.

<sup>8</sup> M. P. Nilsson, *op. cit.*, pp. 3 and 31; cf. Bischoff, *RE*. 20, col. 1574. Nilsson had seen Bischoff's article.

<sup>9</sup> P. Odelberg, *Sacra Corinthia, Sicyonia, Phliasia* (diss. Upsala, 1896), pp. 203-206. The only new cult which *Cor.* viii, 1 revealed is that of [Zeus] Ombrios, in no. 102 (add to commentary on that text).

<sup>10</sup> In Attica outside Athens the number known for all pre-Christian periods is over 300 (S. Solders, *Die ausserstädtischen Kulte und die Einigung Attikas*, Lund, 1931, pp. 130-138). Attica, of course, was more than three times as large as Corinthia, but was famous and exceptional for the number of its cult celebrations (I shall collect the evidence, which is explicit, elsewhere).

<sup>11</sup> Steph. Byz. s.v.: ὄρος Κορίνθου. Ἐφορος iθ (*FGrHist.* 70F75). τὸ ἑθνικὸν Φοινικάϊος. This "mountain" has not been identified. It escaped mention altogether in *Corinth i: Topography*, etc.

<sup>12</sup> Thus in Kythera, for which no cult of Phoinix is positively attested, a bay is named Phoinikous (Xen., *Hell.* iv, 8, 7) and Phoinix was considered father of the eponymon of the island (Steph. Byz. s.v. Κύθηρα).

ἐν Κορίνθῳ τιμᾶται. The person involved is Odysseus, who has a dolphin for a shield device (for other such see *Harv. Stud. Class. Philol.*, 13, 1902, p. 73) and who stole the palladion, Athena, from Troy, as the scholiast goes on to explain. Full of learned obscurities though Lykophron was, I find it hard to believe that his allusion was based on only one cult, that in Corinth; but the cult there may have been the most famous. If the scholiast was right and Lykophron was thinking (primarily) of the cult in Corinth, then that cult was founded as early as ca. 300 B.C.<sup>13</sup>

Among epithets (in the genitive case) of Athena (R. Schoell —) W. Studemund, *Anecdota Varia* i, p. 269, no. 33, lists Φοινίκης.

Such is the evidence. The almost inevitable hypothesis is that the hill, the festival, and the month were all named for Athena Phoinike, whose cult must in that case date back to the period of *Cor.* viii, 1, no. 1, or to 750 B.C. or earlier. The cult would be conceived as having been of sufficient importance to give its name to a hill and to a month. Presumably the cult of Athena Phoinike with its festival was taken out to the colonies Coreyra and Ambrakia (and others?) along with the month-name.

These hypotheses have one accidental advantage, namely that with regard to the old problem of whether the epithet Φοινίκη was derived from φοῖνιξ or from the Phoenicians, no new element is introduced. Everything still depends on the epithet alone. What can be conjectured from the Corinthian month-name is that the cult was one of the important cults of early Corinth.

The prevailing and I daresay the correct opinion is that other Greek place-names (there are no cult-names other than those already mentioned) in Φοινικ- derive from Phoinix or φοῖνιξ, not from the Phoenicians. Something depends on the traces of Phoenicians in Greece. It is not necessary here to discuss this aspect.<sup>14</sup> The date when the Greeks first began calling them "Phoenicians" we may never know, but the tendency is to bring down to a fairly late date—ca. 800 B.C. or later—the period of Phoenician expansion and of Greek dealings with them.<sup>15</sup> It is likely enough that Phoinix and Phoinike and the many localities in the Greek world named with the root Φοινικ- had received their respective names before the same root was applied to the Phoenicians.<sup>16</sup> The name Phoinike in the Greek world was borne by three or four minor mythological figures (Roscher, s. v.). It may be significant that the myths do not connect any of them with the Phoenicians.

As to the Athena Phoinike at Corinth, the origin of her cult and the real reason for her name remain obscure.

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<sup>13</sup> E. Maass suggests that the epithet refers to a parent cult in Phoenicia, maintained in Athena's honor by hellenized Phoenicians, and thence spread to Greece (*Griechen und Semiten auf dem Isthmus von Korinth*, Berlin, 1903, pp. 5-6). All of this is not likely to have happened in time for Lykophron to have written about it.

<sup>14</sup> On the Phoenicians in Greece see primarily E. Meyer, *Geschichte des Altertums* <sup>2</sup> ii, 2, 1931, pp. 113-122, and K. J. Beloch, *Griechische Geschichte* <sup>2</sup> i, 2, 1913, pp. 65-76.

<sup>15</sup> As in R. Carpenter, *The Humanistic Value of Archaeology* (Martin Classical Lectures at Oberlin iv, Cambridge, Mass., 1933), pp. 41-65.

<sup>16</sup> On "Phoenician" names, see A. Fick, *Vorgriechische Ortsnamen*, pp. 35, 41, 57, 124-126; Beloch, *Gr. Gesch.* <sup>2</sup> i, 2, pp. 70-72, 247; W. W. How—J. Wells, *Commentary on Herodotus* i, p. 53; and now G. Bonfante's learned article, "The Name of the Phoenicians," *CP.*, 36, 1941, pp. 1-20.

## THE MASTER OF OLYMPIA

IN ANY approach to the problems of Greek sculpture in the so-called transitional period (480–450 B.C.), two or three facts must be emphasized. In the first place, we have no clearly defined schools, as we have in the periods before and after, nor are we able to trace step by step the development of the sculpture itself; by way of contrast, consider, for example, any decade of sixth-century Attic sculpture. In the second place, we have only a few great originals, which, no doubt, helps to explain our first problem. It is well known, furthermore, that in the aftermath of the Persian Wars many years were to pass before a revival in Greek architecture occurred, yet the sculptural remains prove that great artists still found employment; indeed, we do not need the actual sculptures to prove this, for, had there been no employment for artists during the transitional period, the achievements of the next decades would have been impossible. Where did the sculptors find employment? It must be emphasized that in our period Athens did not so dominate the world as to attract to her the greatest thinkers and artists of the day; that lay in the future.

During the exciting years of the transitional period, with victories won over Persia and Carthage, people, including all kinds of artists, traveled about freely. In this connection it has never been sufficiently brought out, so far as I am aware, that during these years, when Greece was recovering her breath from the shock of foreign invasion and preparing to enter into full manhood, there existed in Sicily powerful tyrants who patronized the arts. If we count as the great originals of the transitional period the Olympia sculptures, the Delphi charioteer, the bronze Zeus from the sea, and (perhaps) the Ludovisi throne, is it significant that the Ludovisi throne has always been associated with Sicily and that the Delphi charioteer was dedicated by a Syracusan?

The main thesis of this paper is that, while many factors must be considered in a definitive study of transitional Greek sculpture, it will be helpful meanwhile to remember the special position of the West. Ashmole<sup>1</sup> has brought out the fact that western art owed much to artists from the Greek mainland; what I should like to emphasize is the debt of the mainland to Sicily and South Italy. I do not necessarily mean that western artists came to Greece to work; the chief point is that, in the years before the full maturity of Greece, mainland artists found employment in the West. If we approach the problem of the Olympia sculptures, for example, with this in mind, perhaps we may learn something more about the great sculptor responsible for them, though I need hardly add that I do not hope to do more than suggest a new line of thought.

It would serve no useful purpose to recapitulate here the various discussions concerning the sculptures of the temple of Zeus at Olympia. They are known to all, and probably everyone will agree with Beazley's conclusion:<sup>2</sup> "Who was the artist? Pausanias gives an answer: the east pediment was by Paionios of Mende and the

<sup>1</sup> "Late Archaic and Early Classical Greek Sculpture in Sicily and South Italy," *Proceedings of the British Academy* xx. References to Ashmole are to this study.

<sup>2</sup> Beazley and Ashmole, *Greek Sculpture and Painting*, p. 39. References to Beazley are to this work.

west by Alkamenes. We know something about both artists, or about the work they were doing in the thirties and twenties, and Pausanias' attributions present difficulties. To sum up: first, it looks as if a single artist was responsible for the designs of the two pediments and the metopes; secondly, it is hard to believe that Alkamenes worked on the temple, unless in a completely subordinate position, even in his youth; thirdly, it is a little less hard to believe that Paionios was the artist, but it is better to call the artist the Master of Olympia." Miss Richter remarks<sup>3</sup> that "it is best, therefore, to suppose either that Pausanias was mistaken, or that there was an earlier Paionios."

It is certainly not my purpose to prove that a Paionios, early or late, carved the Olympia sculptures—though Pausanias' statement is precise, and the difference between these sculptures and the Nike<sup>4</sup> is not forbidding<sup>5</sup>—but I think that the evidence will suggest that a sculptor of Mende, or rather a sculptor who had connections with Euboea, did carve them. A tantalizing fact about the sculptures of Olympia is that we can find no satisfactory and illuminating parallel for them. I believe, however, that the horses of the east pediment are an exception. In discussing them Rodenwaldt says:<sup>6</sup> "The horses are not the dainty, nervous, high-stepping beasts of late archaic art, nor are they the heavier breed of the fiery horses of the Parthenon, but rather trained racehorses, whose noble, measured movements it is easy to imagine." The horses of Pelops and Oinomaos are, indeed, unique, as far as the evidence of sculpture is concerned, but a coin of Himera<sup>7</sup> carries a convincing resemblance—convincing in spite of the difference in medium and the slightly earlier date of the coin. Not only is the spirit the same, but also the very build of the horses, even to the curious angle in the tail.<sup>8</sup> In his discussion of Tarentine terracottas, Ashmole remarks:<sup>9</sup> "The coinage of Himera may be mentioned here, and especially the remarkable issue to be dated to 472 B.C., when a citizen of Himera won the chariot-race at Olympia. Pelops is named as the driver of the chariot on the obverse, which, although it bears this common Sicilian type, is without parallel for style among Sicilian coins: the horses are of different build and stand more delicately than any elsewhere." I do not imagine that the same man made the coin and the sculpture—though there is no evidence to the contrary—but I do consider it likely that there existed in transitional Greece a more important "Chalcidian" school than we have previously suspected. Himera, it will be recalled, was a colony of Chalcis, whose neighbor, Eretria, had founded Mende.

There are, of course, other connections between Euboea and Olympia. In his brilliant essay on archaic Greek sculpture, Payne<sup>10</sup> states that the new influences on Attic art in the early fifth century derived from the Peloponnesus and points to a

<sup>3</sup> *The Sculpture and Sculptors of the Greeks*<sup>2</sup>, p. 243.

<sup>4</sup> Hege and Rodenwaldt, *Olympia*, pl. 83.

<sup>5</sup> The difference, for example, between the metopes of the Parthenon and the rest of its sculpture must be great enough to make one hesitate before he denies the possibility of conspicuous growth to an original artist in these decisive years in the development of art (even though the later work may appear to us inferior, aesthetically).

<sup>6</sup> Hege and Rodenwaldt, *op. cit.* p. 34, figs. 17, 19, pls. 31, 32.

<sup>7</sup> Ashmole, fig. 12.

<sup>8</sup> The reverse of this tetradrachm (Ashmole, fig. 11) calls for attention, because of the nymph's transparent drapery.

<sup>9</sup> P. 12.

<sup>10</sup> Payne and Young, *Archaic Marble Sculpture from the Acropolis*, p. 42, pls. 84, 113.



bronze mirror, illustrated by Langlotz,<sup>11</sup> as showing the facial type of the Euthydikos kore in an earlier stage. Payne adds that there is a connection with the Olympia sculpture through the Blond Boy. The mirror is classified by Langlotz as "Sicyonian," though actually it comes from Thebes; but if we are seeking parallels in an earlier stage for the Olympia sculpture, we can go back of the Euthydikos kore and the Blond Boy to something earlier and better, to the west pediment of the temple of Apollo Daphnephoros at Eretria.<sup>12</sup> The similarity of the striking treatment of Antiope's hair (in front), for example, to the mirror, the Euthydikos kore, and a Lapith woman<sup>13</sup> in the west pediment of Olympia is obvious, I think; compare, too, the hair of Theseus with that of Apollo.<sup>14</sup> The structure of Theseus' face is, furthermore, very close to that of Athena<sup>15</sup> in the metope of Herakles and the Nemean lion at Olympia, while by far the best parallel (in an earlier stage) for the treatment of the stomach of the Olympia Apollo is to be found in a youth from Eretria, illustrated by Langlotz.<sup>16</sup>

My point has been that in the momentous years between the defeat of Persia and the Athenian domination of the Aegean, great art was produced, but so far as any great originals have come down to us they are still, in many essentials, a mystery. I have emphasized that, in the earlier years of the transitional period, when Greece was yet unable to carry forward the construction of temples, there existed tyrants in Sicily who were patrons of art. For this period, then, the West has special significance for the art of the mainland, and it is not surprising to find that the important Euboean cities, Chalcis and Eretria, which were themselves great colonizing states, should enter our picture.

If this line of thought is at all correct, further research will, no doubt, bring us closer to the answer of some of our other problems as well. For our purpose here it is perhaps only necessary to mention again that the Delphi charioteer was dedicated by a Syracusan.<sup>17</sup> But what of the bronze Zeus from the sea off Cape Artemisium in Euboea?<sup>18</sup> It is notable that this Zeus—which is clearly in the Argive tradition—bears no striking resemblance stylistically to familiar representations of the god, such as the head of Zeus on contemporary coins of Elis or on Roman coins of Elis which presumably carry a likeness of the Pheidias Zeus;<sup>19</sup> indeed, it will be remembered that the bronze Zeus was first published as a Poseidon.<sup>20</sup> Nor, it seems to me, is

<sup>11</sup> *Frühgriechische Bildhauerschulen*, pls. 18, c. and 22, d. I have already argued that the change in Attic art at this time was due not to Peloponnesian influence, but to changed social conditions (*AJA.* xlii, 1938, p. 451 f.).

<sup>12</sup> Richter, *op. cit.* fig. 284.

<sup>14</sup> *Ibid.*, pls. 45, 47.

<sup>13</sup> Hege and Rodenwaldt, *op. cit.* pls. 60, 61.

<sup>16</sup> *Ibid.*, pls. 66, 68.

<sup>15</sup> Pl. 65, a.

<sup>17</sup> Ashmole (p. 30 f.) says: "But it must be admitted that this, one of the few known Syracusan dedications, now securely dated to 477 B.C. by Wade-Gery (*JHS.* liii, p. 101 f.), though it bears the marks of its period clearly enough, does not fit in particularly well with other Syracusan or Sicilian works of the time, unless it be with Athena of the Vatican (figs. 43, 44)." For my part I cannot see the slightest connection between the two; the closest parallel is the girl on the terracotta plaque from Locri (Ashmole, fig. 24; on p. 17 Ashmole compares the low dome to the skull and the heavy jowl of the figures on the metope-like reliefs of this plaque to the charioteer, Richter, fig. 285).

<sup>18</sup> Beazley, fig. 67.

<sup>19</sup> Richter, figs. 610, 606. The pose, of course, resembles, for example, the Dodona bronze (Richter, fig. 101). I suspect that the right arm of our Zeus has been incorrectly restored; when first found, the right shoulder pointed downward (*AA.* 1928, fig. 10).

<sup>20</sup> Karouzos, *Δελτ.* 13, p. 41 f.



there much point in Beazley's statement<sup>21</sup> that "the original of the Choiseul-Gouffier Apollo in London must have been of the same school as the Zeus from Artemision." Ageladas comes naturally to mind,<sup>22</sup> but a tetradrachm of Zancle,<sup>23</sup> to be dated somewhat after 450 B.C., is fundamental. Considering the state of preservation and the area available to the artist, the god of this coin is a distinct echo of our Zeus. Evans, after debating the question of the representation of Zeus as a possibility, published the figure on the coin as Poseidon, but in the 1911 edition of the *Historia Numorum*,<sup>24</sup> Head questioned the attribution. Previous to this, Zancle had been renamed Messene.<sup>25</sup> A well known, but late tetradrachm of Peloponnesian Messene (280-146 B.C.), shows essentially the same god (Zeus, but without the chlamys), and Miss Richter's remarks<sup>26</sup> concerning it have, I think, even greater weight when we remember the coin of Zancle: "Ageladas of Argos, the reputed teacher of Pheidias, Myron, and Polykleitos, made a statue of Zeus for the Messenians the general composition of which appears to be reproduced on coins of Messene." Messene was not founded until 369 B.C., but Pausanias<sup>27</sup> clears up the point: "The statue of Zeus is a work of Ageladas, and was originally made for the Messenians of Naupactus."<sup>28</sup> It is clear that the Messenians, no matter where they were, knew a certain Zeus—a type so famous that it appeared on their coins for two centuries or more. Did the Zeus of Ageladas, originally set up at Naupactus, later start on a journey from Messene to Constantinople, only to be wrecked off Euboea?

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<sup>21</sup> P. 34, fig. 65.

<sup>22</sup> Von Oppeln-Bronikowski, *Arch. Entdeckungen*, p. 92; see, too, Jüthner, *AM.* lxii, 1937, p. 136 f.; Poulsen, *Acta Arch.* xi, 1940, p. 1 f.

<sup>23</sup> Evans, *Num. Chron.* 1896, pl. viii, 7; see, too, p. 113 f.

<sup>24</sup> P. 154, fig. 82; on p. 133 of the first edition Head suggested the possibility of Zeus.

<sup>25</sup> After 460 B.C. Zancle, which had a mixed population, as well as a checkered history, and had been named Messene several decades earlier by Anaxilas of Rhegium, was regularly called Messene (*CAH.* v, p. 154). The inscription on our coin is an archaism (see Evans and Head).

<sup>26</sup> P. 196, fig. 562, where Ageladas is placed in the archaic period. Slight differences of detail between a statue and its representation on a coin are to be expected.

<sup>27</sup> IV, 33, 2.

<sup>28</sup> The Messenian helots had been settled at Naupactus in 455 B.C., thus giving us a definite date for Ageladas; presumably they dedicated a statue to Zeus soon after their deliverance, to be followed by Sicilian Messene with its coins. If this should prove to be our Zeus, we have an important *post quem* date for the statue, some five or ten years later than the generally accepted date (about 470-460 B.C., Beazley, pl. 67); on the other hand, it must be remembered how recently we have had to change our dating of the Delphi charioteer; this may, too, necessitate a change, for example, in the date of Polykleitos' Doryphorus (Richter, p. 41).

## EXPLORATIONS IN ELIS, 1939

ALMOST every region of Greece offers opportunities for a very promising kind of archaeological study in the form of a systematic surface exploration for all ancient remains. Such a survey, if carried out completely, would certainly reveal a wealth of information of a sort that has hitherto been largely neglected. Although it is true that from time to time over a period of several centuries various travellers have published notes on their journeys in Greece, their works generally lack completeness, since their opportunities were likely to be restricted, and their interests generally limited or highly specialized. Within the past seventy years, excavations have added much to our knowledge of certain ancient sites in Greece. These excavations, however, have generally been of such interest and magnitude in themselves that the surrounding regions and the other sites, whatever their meaning may be, have still been left in comparative obscurity. In only a few regions has an interest in a survey of all sites, great and small, late and early, been allowed to bear fruit. As a result, the problem of seeking to understand the history and archaeology of an entire region generally has the charm of a fresh and practically untouched subject. The ancient province of Elis is among the districts that deserve new, detailed, and thorough archaeological study. In spite of the great excavations at Olympia, the excavations at the city of Elis, and a certain amount of exploration and digging at a number of other spots, this province has remained among the less well known regions of Greece.

The initial purpose of the present project is to undertake a systematic and thorough exploration of the entire province of ancient Elis, in order to examine and record all surface remains of antiquity, and to observe their topographical setting. Then it is proposed to study and use the evidence obtained in the field as an aid towards the understanding of the history and archaeology of Elis from the earliest times through the various ancient periods. Professor Carl W. Blegen first suggested to me the opportunities offered by an archaeological survey of this kind, and he has continued to give me encouragement and help in the pursuance of plans. In the summer of 1939 I was enabled to embark upon the field work as a result of an anonymous grant through Yale University.<sup>1</sup>

Since Elis is a fairly large province, several seasons were to be allowed for the field work alone. In the beginning, a permit was granted me for exploration in the middle zone, between the Peneios and Alpheios Rivers. During the summer of 1939 I worked principally in this district, with the exception of several brief visits to the north and south. Unfortunately, it became necessary to discontinue exploration towards the end of August, 1939, somewhat earlier than expected. Of course, further work in the field has not been feasible since then, and it is impossible to predict when it may be resumed. Therefore it seems advisable to make a brief report now

<sup>1</sup> In Athens, Professor Gorham P. Stevens, Director of the American School of Classical Studies, was most kind in assisting me in making the proper arrangements. Dr. Spyridon Marinatos, Director of the Archaeological Service in the Greek Ministry of Education, placed me under great obligation by his sympathetic aid in all official matters, and particularly in securing the permit for exploration.

on the results that have already been achieved. This account is submitted with all apologies for the incompleteness of the work, and in full cognizance of the fact that subsequent exploration and study may necessitate changes in opinions ventured here.

Elis is a region of varied character, comprising the west part of Peloponnesos, and bordered by Achaia on the north, Arkadia on the east, and Messenia on the south. The land of Elis possesses no true geographical unity. Various sections differ widely from each other in regard to possible locations for settlements, and opportunities for livelihood. The hilly regions, comprising large sections of the interior of the province, are mostly wild now, and partly forested, as they probably were in antiquity; they offer scarcely any land for cultivation, and not a great deal of pasture. In the whole province there is only one broad plain, known as Hollow Elis, which spreads out to the north and south near the lower Peneios River. Hollow Elis provides pasturage for cattle and horses, and has some vineyards and grain fields, but contrary to common opinion, it is not the most fertile part of the province. The Alpheios Valley is somewhat more favorable, but it is quite narrow. The most fertile parts of Elis are the little valleys that pierce the southern hills and approach the coast; more than any other districts, they encourage pastoral and agricultural activities, but always within narrow confines.

As far as the main currents of Greek life and civilization are concerned, Elis is certainly an outlying province. The peculiar effect of its position upon its relations with the outside world is somewhat increased by the fact that the province cannot be conveniently approached except along a very few natural and easily controlled routes. Its coast offers almost no good harbors, and during most of antiquity the sea must have been less important to the people here than to the residents of most other regions of Greece. By land Elis is also somewhat difficult of access. The only convenient approach from Achaia is along the flat coastland, much of which is not favorable to settlements. On the side of Arkadia, the mountains and deep ravines form an effective barrier, traversed by only a few routes; one route crosses the highlands near Mount Erymanthos, another follows the Alpheios Valley, and farther south a way may be found among the hills from Arkadia into Triphylia, or southern Elis. The rugged southern hills of Elis adjoin those of Messenia, but because of the orientation of the steep little valleys the only convenient approach from the south is along the narrow pass on the coast.

Within the province the natural routes of communication are few. The Alpheios Valley offers the best route from east to west. Along the fertile little valleys of the south, over the highlands of the northeast and southeast, and among the hills of the middle region, there are lesser or branch routes. The nature and extent of the hills discourage traffic in most of the interior of the province. Both the Alpheios and Peneios Rivers during most of the year act as hindrances to communication or travel in northerly and southerly directions. The coastal lowland is generally traversable, except at the rivers and where it is too sandy or swampy.

Even at this stage of the present project it is becoming clear that, at least for certain periods, a kind of pattern of settlements may be discerned. In the life of each period there were undoubtedly different conditions that helped determine the very location of settlements, and also their growth or decline. These changing con-

ditions were no doubt operative alongside more or less fixed geographical factors, such as those spoken of above. Therefore, the discovery of a pattern of settlements for any one period may be historically useful.

In the present account, the principal periods of occupation that are considered are: (a) Early Helladic, (b) Middle Helladic, (c) Late Helladic, (d) Classical Greek and Hellenistic, and (e) Roman. These are the main divisions into which the sites investigated in 1939 proved to fall. The Stone Age is not considered at all, since there is at present no evidence of any developments in Elis prior to the Early Helladic Period. Only brief mention is made in this report of the centuries immediately preceding the Classical Greek Era. Of course, it must be said that such chronological data as are cited here are mostly derived from the present comparative study of the surface finds at the various sites, or from the results of the Olympia and Kakovatos excavations. Unfortunately, there is still a lack of stratigraphically excavated and published material for most of the periods in this region.

The various sites visited in 1939 are listed below. I have tried to use ancient place-names as far as seems possible without further topographical study. For most sites, however, I have actually used modern place-names, since in many cases the ancient names have not been handed down, and in other cases conjectures would be premature and would not add to our knowledge. The comments on the sites in the following list are not intended to give complete information or even bibliography, but only such facts and remarks as seem pertinent to the exploratory work in its present stage. All numbered sites may be found on the accompanying map (fig. 1), for which I am indebted to Benedict Gropp of Yale University. About half of these sites, as well as a number of sites that I was unable to visit in the 1939 season of exploration, may be found on the following useful maps: (1) the map of the entire province of Elis, accompanying J. G. Frazer's *Pausanias's Description of Greece*, and reproduced in J. G. Frazer and A. W. Van Buren's *Graecia Antiqua*; (2) the map of Pisatis, in the volume of maps and plans for Curtius and Adler's *Olympia*, drawn by P. Graef, and with an accompanying study by J. Partsch; (3) the map of Triphylia, drawn by Konrad Graeffinghoff, with the co-operation of several colleagues in the German Institute, and published in *Athenische Mitteilungen* xxxviii, 1913, Taf. IV, with comments on pp. 97-101. Here is the list of sites concerning which the 1939 explorations have yielded some information:

1. Agrapidochori.

Vestiges of a small settlement of the Classical Greek Period are found on a hill called Armata, about one kilometer northwest of the village of Agrapidochori, at the confluence of the Ladon with the Peneios River. The place is strongly situated, but no remains of a fortification wall have been observed. It is quite possible that this was the site mentioned as Elean Pylos in Pausanias vi, 22, 5-6. As preclassical remains seem to be lacking, however, there is no evidence for Pausanias' conjecture that the site had been occupied in early times.

Anemomylos—see Skaphidia.

Arene—see Kleidi.

Armata—see Agrapidochori.

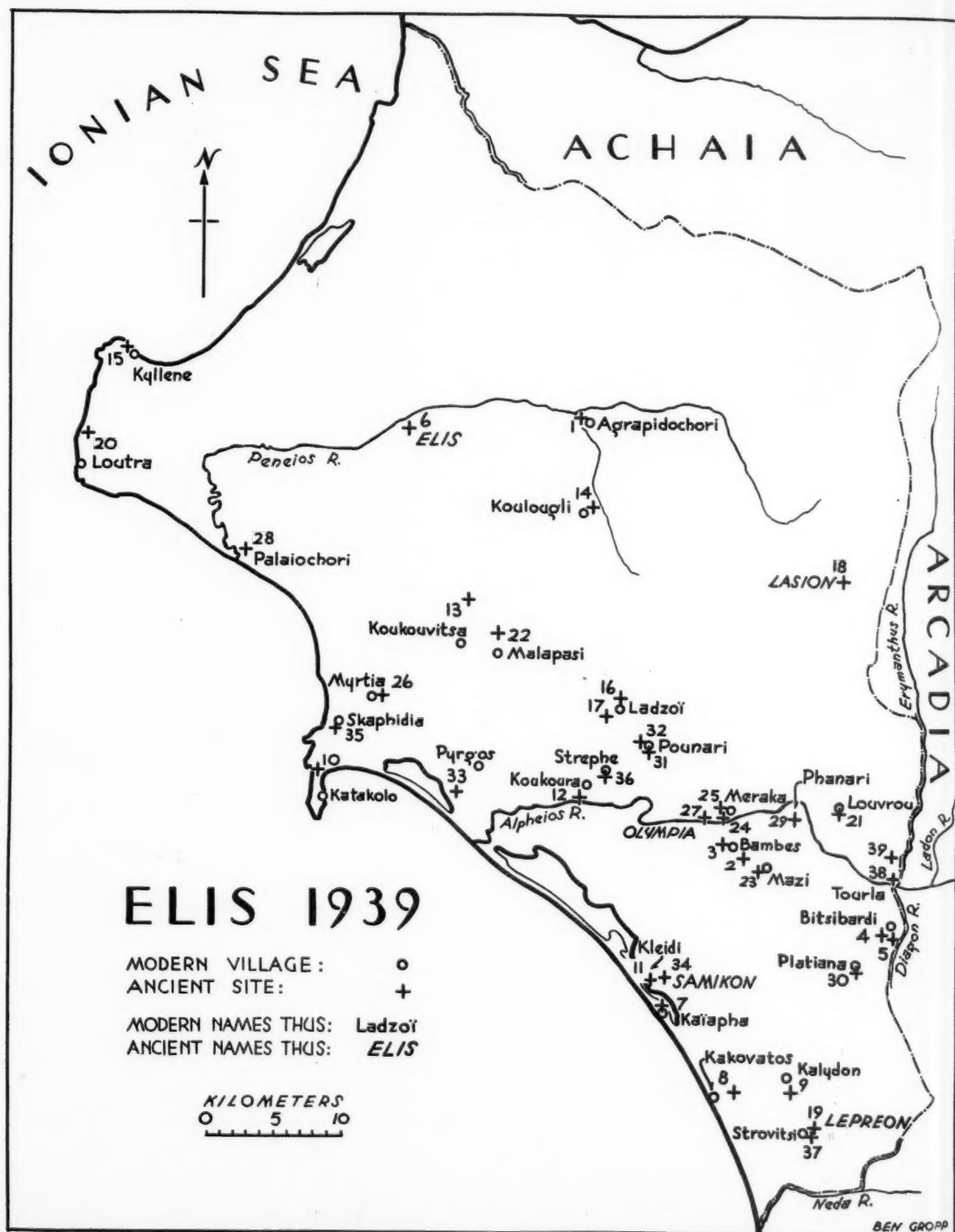


FIG. 1. — ARCHAEOLOGICAL SITES IN ELIS, 1939



2. Bambes (see also no. 3).

Slight traces of habitation of the Classical Greek Period are found just southeast of the village of Bambes, in a place probably occupied by a small group of houses.

3. Bambes (see also no. 2).

At a level spot approximately halfway down the slope from Bambes to the Alpheios there are some hitherto uncharted vestiges of ancient habitation, including fragments of pottery and roof tiles of the Classical Greek Period, and a bit of a wall built of rude stones, possibly representing the remains of an isolated farmhouse.

Beauvoir Castle—see Katakolo.

4. Bitsibardi (see also no. 5).

Splendidly situated on the broad upper levels of the hill, on the northeast slope of which lies the village of Bitsibardi, are the remains of a large and hitherto uncharted settlement of Classical Greek and Hellenistic times.

5. Bitsibardi (see also no. 4).

On the east side of Bitsibardi hill, in an area known as Perivola, are the hitherto uncharted vestiges of a settlement of the Bronze Age. I observed a few fragments of pottery somewhat similar to the Middle Helladic wares of Olympia, and some that are apparently Late Helladic, as well as a few Classical Greek sherds.

Boinoa—see Koulougli.

Dragata—see Pounari, no. 32.

6. Elis.

The ancient city of Elis is situated on the south side of the Pencios River, where that stream enters the plain known as Hollow Elis. The city was founded in the first half of the fifth century B.C., and was apparently inhabited until late antiquity. Reports on the Austrian excavations have been published in the *JOAI*. xiv, 1911, Beiblatt, cols. 97-116—the two six-week campaigns of 1910; xvi, 1913, Beiblatt, cols. 145-152—the two-month campaign of 1911, and the one-month campaign of 1912; xviii, 1915, Beiblatt, cols. 61-76—the three-month campaign of 1914.

Ephyra—see Koulougli.

Epion—see Platiana.

Gastoune—see Palaiochori, no. 28.

Glarentza—see Kyllene.

Gridou—see Koukoura.

Gyphtokastro—see Kalydon.

Hagios Yoannes—see Ladzoi, no. 16.

Herakleia—see Pounari, no. 31.

7. Kafapha.

Submerged in the lagoon near the baths of Kafapha are some peculiar foundations, constructed of large, squared blocks, and probably belonging to Classical Greek, or Hellenistic times. The construction is very long and straight, and may represent a solidly built roadway across an area that was already difficult to traverse at that time. A different explanation of these remains is hinted at by H. L. Bisbee in *Hesperia* vi, 1937, p. 525.

8. Kakovatos.

On a small hill, about one kilometer inland from the village of Kakovatos, are the ruins of three bee-hive tombs and the foundations of a building identified by Dörpfeld, the excavator, as a palace. See *AM*. xxxiii, 1908, pp. 295-317 and plates XV-XVII; xxxiv, 1909, pp. 269-328 and plates XII-XXIV;

- xxxviii, 1913, pp. 97-139 and plates IV-Va. No evidence has been discovered to indicate the presence of any inhabitants at the site, except the occupants of the palace. The principal ceramic finds from the excavations are of the Late Helladic II Period. Dörpfeld's identification of the site as Nestor's Pylos has not proved convincing, and even less so since the beginning of the excavations at Messenian Pylos, near Englianos, just north of Navarino Bay.
9. Kalydon. An ancient fortress now called Gyphtokastro occupies the summit of the precipitous hill just south of the village of Kalydon. See *AM.* xxxviii, 1913, pp. 124-125. As Dörpfeld has pointed out, the masonry is so poor that it cannot be dated by itself, and the few existing potsherds are so badly weathered that they scarcely offer any useful evidence; Dörpfeld thought that the fortress perhaps did not even belong to ancient times. I observed a few sherds that may perhaps be recognized as of Classical Greek, or Hellenistic fabric. There was undoubtedly no real settlement here, but only a hastily fortified refuge or outpost.
10. Katakolo. On the hill that dominates the promontory of Katakolo are the ruins of the Frankish Beauvoir Castle, sometimes known as Pontikokastro, and also some hitherto unnoticed vestiges of ancient habitation. Perhaps this was the site of Pheia, as had been conjectured even before ancient remains were known to exist here. There are some traces of occupation in the Late Helladic Period, and also in an earlier phase of the Bronze Age, as well as in the Classical Greek Period.
11. Kleidi. The two low hills forming this site are now fittingly called "The Key," as they command a kind of pass in the natural land route along the sea in Triphylia. The discovery of the site, and the results of exploratory digging were reported by Dörpfeld in *AM.* xxxiii, 1908, pp. 320-322, and xxxviii, 1913, pp. 111-114, with the conjecture that this place was Homeric Arene. Dörpfeld mentioned a cyclopean fortification wall, which I was unfortunately unable to observe in 1939. There is ceramic evidence that there was a small settlement here in the Late Helladic Period. There are some vestiges of still earlier habitation, but I did not see sufficient evidence to allow me to date the early remains exactly.
12. Koukoura. On the side of a hill called Gridou, about one kilometer southwest of the village of Koukoura, and a very short distance west of the railroad station now called Salmone, there are some fragments of pottery and roof tiles of the Classical Greek Era, possibly indicating a very small settlement. See *AM.* xxxviii, 1913, p. 115, for Dörpfeld's mention of remains of a Classical Greek temple, and of a prehistoric settlement in the vicinity; I have not seen traces of either of these.
13. Koukouvitsa. On a prominent hill, several kilometers north of the village of Koukouvitsa, there are remains of a fortified settlement of Classical Greek and Hellenistic times. This is probably the site referred to by J. Keil and A. von Premerstein in the *JOAI.* xiv, 1911, Beiblatt, col. 116, as an important, hitherto uncharted site in the vicinity of Valomandra, about two hours east of Amalias.

## 14. Koulougli.

There are some Roman remains near the Ladon River, east of Koulougli. It has been conjectured that this was the site of Boioa or Oinoe, mentioned in Strabo viii, 338, as possibly being the location of Homeric Ephyra on the Selleis. Since there are no traces of pre-Roman occupation at the Koulougli site, this conjecture is of dubious value.

15. Koumani—see Lasion.  
Kyllene.

Just outside the modern harbor-village of Kyllene are the remains of mediaeval Glarentza Castle, and hitherto unnoticed traces of occupation from Classical Greek to Roman times, probably representing a small harbor-settlement. The position and nature of the site make it quite possible that it was ancient Kyllene, too, although further study is needed to consider the possibility of identifying ancient Kyllene with Kounoupele, a more northerly site not visited in 1939. Immediately north of the village, on an inconspicuous little hill called Hagios Yoannes, lie remains of what appears to have been a Roman building.

## 16. Ladzoī (see also no. 17).

On a low hill called Phraseri, about one kilometer southwest of Ladzoī, there seems to have been a small ancient settlement, but I am unable to date it on the basis of present evidence, although I am inclined to think it late. The potsherds resemble some fragments from one period of occupation of Skaphidia.

## 18. Lasion.

The ancient fortified hill-town of Lasion, inhabited from Classical Greek to Roman times, lies near the present-day village of Koumani. The site was of some strategic importance because of its proximity to the route from northwestern Arkadia to central Elis.

## 19. Lepreon (see also no. 37).

This fortified hill-town above modern Strovitsi commands one of the most fertile and attractive little valleys in southern Elis. The site was occupied from Archaic Greek to Roman times, but most of the visible remains belong to Classical Greek and Hellenistic times.

Letrinoi—see Pyrgos.  
20. Loutra.

About three kilometers north of Loutra Kyllenes, on a ridge overlooking the sea, there exist scant vestiges of a small and hitherto uncharted settlement of the Classical Greek Era.

## 21. Louvrou.

On the hill south of Louvrou, at a spot called Stavropodi, a few Classical Greek potsherds may be observed on a previously uncharted site.

## 22. Malapasi.

At a hitherto uncharted site, near the hills about two kilometers north of Malapasi, traces may be observed of what was probably a small settlement of the Classical Greek Era. The spot is now called Palaiochori.

## 23. Mazi.

On a hill a short distance west of the village are some traces of a Classical Greek settlement. Possibly this site was Skillous. Mr. Phoibos Stavropoulos, the ephor, conducted an excavation here some time after my visit, and in "News Items from Athens," *AJA*, xlv, 1940, p. 539, it is reported that he believes he has found the site of the Artemis temple constructed by Xenophon.

## 24. Meraka (see also no. 25).

Not far east of Olympia lies the little hill and ancient site conjecturally identified by Dörpfeld as Pisa. See *AM*, xxxiii,

25. Meraka (see also no. 24).

26. Myrtia.

Oinoe—see Koulougli.

27. Olympia.

28. Palaiochori.

Palaiochori—see also Malapasi.

Perivola—see Bitsibardi, no. 5.

Phakistra—see Pounari, no. 31.

29. Phanari.

Pheia—see Katakolo.

Phraseri—see Ladzoī, no. 17.

Phrixa—see Phanari.

Pisa—see Meraka, no. 24.

1908, pp. 318–320, on the excavation conducted here in June, 1908. Dörpfeld reports the presence of prehistoric pottery, as at Olympia, and the absence of Mycenaean ware. Diedrich Fimmen (*Die kretisch-mykenische Kultur*<sup>2</sup>, p. 77) mentions the existence of matt-painted pottery from this site. Thus it would seem that it was occupied in the Middle Helladic Period. There are slight traces of use of the site in the Classical Greek Period, although there was probably no real settlement here then. Immediately to the northwest are vestiges of some Roman brick construction.

On the west side of the west fork of the Meraka stream I observed slight traces of Bronze Age habitation, but the evidence was not sufficient to allow a more exact estimate of the date.

Both east and west of this village are very slight traces of ancient habitation, perhaps of Roman date.

The historical remains of the great sanctuary need no comment here, as the modern accounts, from Curtius and Adler's publication to reports of the latest German excavations, are well known. The existence of prehistoric remains at Olympia, however, is important not only in itself, but also for the light these remains may cast on other sites in Elis. Little attention was paid to these early remains, until the excavations conducted by Dörpfeld in 1906 and subsequent years, below and near the Heraion. See *AM.* xxxi, 1906, pp. 205–218, and xxxiii, 1908, pp. 185–192, as well as Dörpfeld, *Alt-Olympia* i, pp. 73–102. The early remains lay covered by a thick alluvial deposit, and therefore cannot be considered directly antecedent to the sanctuary. Foundations of a number of apsidal houses have been uncovered; near by were several pithos-burials; the contemporary pottery is of Middle Helladic date. No evidence of earlier occupation has been observed, and only a single isolated Mycenaean sherd has come to light.

About one kilometer on the way from the present mouth of the Peneios River towards Gastoune there exist slight and hitherto uncharted traces of ancient occupation, apparently of the Classical Greek Period. Perhaps there was a very small settlement here, near the ancient mouth of the river.

This very conspicuous and not easily accessible hill, on the south bank of the Alpheios River, has been conjecturally identified as ancient Phrixa, a settlement mentioned in Herodotus iv, 148, as one of the towns founded by Minyan settlers. The top of the hill was certainly the site of a fortified settlement, but the earliest remains I was able to observe are no earlier than the latter part of the fifth century B.C.

## 30. Platiana.

The beetling hill south of Platiana was the site of a fortified town of Classical Greek and Hellenistic times. The foundation of the settlement may actually have taken place in the Archaic Greek Period; see H. L. Bisbee's article on Samikon in *Hesperia* vi, 1937. Most of the fortification wall and the ceramic material must, however, be assigned to the late fifth century B.C. and the succeeding period, as at Lepreon and Samikon. The Platiana site has been conjectured to be Epion or Typaneai, but at present any attempt at identification seems premature. The newly discovered site at Bitsibardi (no. 4) will have some bearing on conjectures about Platiana. At the southern edge of this village, in an area now known as Phakistra, I observed some Classical Greek potsherds and roof tile fragments, and also some sherds resembling the prehistoric wares of Olympia. In at least two periods there was apparently a small settlement here. It is possible that this site was Herakleia, as has been conjectured.

## 31. Pounari (see also no. 32).

Northwest of Pounari, on the side of a hill now called Dragata, there are some traces of Classical, and possibly of Archaic Greek, occupation.

## 32. Pounari (see also no. 31).

Pylos (Elean)—see Agrapidochori.

Pylos (Triphylian)—see Kakovatos.

## 33. Pyrgos.

Modern Pyrgos has been conjectured by some scholars to be on the site of Letrinoi, but no material proof has come to light to indicate the existence of an ancient town at precisely this spot. The only ancient remains that I have been able to observe within several kilometers of Pyrgos are those already charted on early maps between the town and the mouth of the Alpheios River, where there were apparently some tile-covered graves of Classical Greek and later times; perhaps there was no organized settlement in this vicinity, but only a few scattered houses in the country, as now.

## 34. Samikon.

From its conspicuous hill-site, this fortified Greek settlement commands an important part of the coastal plain of Triphylia. Mention of Dörpfeld's exploratory digging here is made in *AM.* xxxiii, 1908, p. 322. See H. L. Bisbee's fine study of the fortifications in *Hesperia* vi, 1937, pp. 525-538. The main portions of the fortification wall were constructed in the second half of the fifth century B.C., but the settlement was established in the Archaic Greek Period, according to the evidence of a section of the fortification wall. Almost all the pottery I was able to observe, however, may be assigned to the Classical Greek Period. I noticed only a single potsherd which may be archaic, according to analogies suggested by Dr. Heilmann of the Olympia excavations staff.

## 35. Skaphidia.

Just south of the village, on a hill called Anemomylos, are some hitherto uncharted ancient remains. The material on the surface is scanty and poorly preserved, but it is perhaps mostly of the latter part of the Bronze Age. There was probably a small settlement here. I also noticed a few late sherds resembling those found at Ladzoi, no. 17, which I am unable to date at present.

Skillous—see Mazi.

Stavropodi—see Louvrou.



36. Strephe.

In a low area and on an adjacent hill south of Strephe there are some hitherto uncharted traces of Classical Greek occupation.

37. Strovitsi (see also no. 19).

At the east end of the village, on the flat-topped, rocky spur that overhangs the valley, I observed traces of Early Helladic, Late Helladic, and Classical Greek occupation. The Early Helladic remains, including fragments of characteristic sauceboats, seem to be more abundant than those of later periods.

38. Tourla (see also no. 39).

The pleasant and hitherto uncharted little hill of Tourla, facing Arkadia from near the junction of the Erymanthos and Alpheios Rivers, was the site of settlements of the Early Helladic, Late Helladic, and Classical Greek and Hellenistic Periods.

39. Tourla (see also no. 38).

On hilly ground, about one kilometer north of site no. 38, are some hitherto uncharted traces of occupation in the Classical Greek Period.

Typaneai—see Platiana.

Valomandra—see Koukouvitsa.

A happy result of this season of exploration was the discovery of typical Early Helladic remains at several sites, including Strovitsi and Tourla (no. 38), thus answering the question as to whether there were any inhabitants at all in Elis during this period. The earliest remains at Katakolo and Kleidi may prove to have been contemporary, although, at present, the surface evidence is scarcely sufficient to allow accurate dating. To be sure, the exploration of the province has not been completed, and it is probable that other Early Helladic sites remain to be discovered. From the present evidence, we gain the impression that the population was small, living in a number of compact, little settlements. The people must have been chiefly agricultural and pastoral, but they must also have had some contact with Arkadia and Messenia, at least, as is indicated by the position of Tourla (no. 38) and Strovitsi. A closer study of the material at Katakolo may aid in determining whether the Early Helladic inhabitants of Elis used the sea.

Precisely what took place in Elis towards the end of the Early Helladic and the beginning of the Middle Helladic Period is an intriguing problem. To venture an explanation now is somewhat rash, since the evidence thus far observed is scanty and needs to be studied further, as well as supplemented by additional field work. It is possible that one or two sites were occupied in both periods, but this does not seem to have been so in most cases. The evidence is lacking to indicate a real transition or continuity of occupation at any one site. If further exploration confirms this observation, we may assume that the Middle Helladic settlers were mostly newcomers, as they seem to have been in many other parts of Greece; a good deal of evidence on this point was published by C. W. Blegen and A. J. B. Wace in *Symbolae Osloenses* ix, 1930, pp. 28-37.

At Olympia and Meraka (no. 24) there were small Middle Helladic settlements, neither of which continued in later times. Some surface evidence that I observed at Bitsibardi (no. 5), Pounari (no. 31), and Skaphidia may tentatively be identified as Middle Helladic, but if real settlements existed at these sites they were evidently

very small. At Bitsibardi (no. 5) it may be possible to discover a connection between the settlers of Middle and Late Helladic times. At present, however, the end of the Middle Helladic Period in Elis must remain as much of a problem as its beginning. The nature of these problems will become more clear, and perhaps a solution will be found when it is possible to carry on further study in the field.

The discovery of the existence in Elis of important remains of the age now known as Late Helladic we must credit to Dörpfeld's work at Kakovatos. This site was apparently occupied only by a palace, with tholos tombs near by; repeated efforts to find a contemporary settlement in the immediate vicinity have failed. Dörpfeld also recorded Mycenaean remains at Kleidi. In addition, we may now definitely list Katakolo and Tourla as Late Helladic settlements, and with less certainty Bitsibardi (no. 5) and Meraka (no. 25). Among the sites of this period Katakolo, Kleidi, and Tourla are prominent, because of their strategic positions. They may very well have been part of a system of defense, or control of territory, and yet they are very conveniently situated for people who must have been mostly agricultural and pastoral. For a markedly different pattern of settlements we may refer to the sites of the Classical Greek Period.

No evidence is known to me to help fill the gap in the history of Elis at the beginning of the Iron Age. It is possible that only excavations will reveal the needed information. Even at Olympia the earliest remains of the Iron Age are apparently no earlier than the eighth century B.C. The impression given by the results of explorations elsewhere in the province is that not much was going on in Elis towards the end of the second and in the beginning of the first millennium B.C.

Even for the eighth, seventh, and sixth centuries B.C. our knowledge of the archaeology of Elis is extremely sketchy, except for the results of the Olympia excavations. At Samikon, Lepreon, and the Platiana site, portions of the fortification walls may be considered to have been constructed before 600 B.C., as H. L. Bisbee points out in his article on Samikon (*Hesperia* vi, 1937). In the case of these and other fortified sites that were possibly occupied in the Archaic Greek Period, it would be most useful if some ceramic evidence could be discovered to confirm this dating. To my knowledge, such evidence is limited at present to a single archaic pithos-fragment that I happened to observe at Samikon, and which Dr. Heilmann of the Olympia excavations staff recognized as analogous to some of the new material from Olympia.

In marked contrast with the centuries immediately preceding it, the Classical Greek Era was the time of the greatest activity in the whole history of this region. The city of Elis, the only urban development in the province, was established before the middle of the fifth century B.C., and the sanctuary of Olympia witnessed the building of the great Temple of Zeus in the same period. Throughout the province there was a great increase in the number of inhabited sites, leaving no doubt that there was a considerable influx or increase in population. The most notable developments occur approximately in the latter half of the fifth century B.C. Some sites seem to have been occupied only then and during the fourth century, but a number of settlements clearly continued to be occupied even through the succeeding century or so. With the exception of Olympia, Kyllene, and the city of Elis, the

various sites of this period that were observed in 1939 may be divided roughly into three groups: (1) hill-fortresses and easily defensible hill-towns, (2) unfortified villages, generally not conspicuously situated, and (3) sites of habitation too small to deserve the name of "village."

In the first group, we may include the high, fortified towns of Koukouvitsa, Lasion, Lepreon, Phanari, Platiana, and Samikon, and such easily defensible and possibly fortified places as Agrapidochori and Bitsibardi (no. 4). Many of these sites are too high and too remotely situated to have been suitable for settlements at any other period, but during these centuries they are indicative of the insecurity prevalent in Elean life. No doubt they served as strategic points in the control of certain areas by small, but more or less permanently established, communities. At times they probably served as refuges for the villagers and farmers who lived in unprotected and generally low-lying spots. The new development of hill-fortresses in Elis is striking disproof of the belief occasionally expressed since ancient times that with the progress of civilization people moved down from the hills.

Yet the Eleans are supposed to have been characteristically fond of country life, and a majority of the population probably lived in the more fertile, low-lying regions of the province, where the unprotected villages and isolated habitations of the second and third groups are mostly found. From these sites it is clear that many people of this time did not have the marked preference of Early and Late Helladic peoples for establishing their settlements on strategically situated, neat, little hills, but frequently built their habitations at rather open and generally inconspicuous spots. For this reason many sites of the second and third groups are rather difficult to find, and more of them are probably waiting to be discovered than of the first group.

Among the village-sites in the second group are the following: Bambes (no. 2), Koukoura, Loutra, Malapasi, and Pounari (no. 31), as well as several more favorably situated sites, including Katakolo, Mazi, Strovitsi, and Tourla (no. 38). Finally, in the third group of the Classical Greek Period we may include the following scattered, tiny settlements: Bambes (no. 3), Bitsibardi (no. 5), Louvrou, Palaiochori (no. 28), Strephe, and Tourla (no. 39). These tiny settlements are phenomena only of this time, and they did not persist.

Some sites, including the city of Elis, Kyllene, and most of the hill-fortresses, continued to be occupied in the Hellenistic Period. This time, however, was not one of important developments in Elis, any more than in most other parts of Greece. Although Polybius (iv, 73) reports a proportionately large rural population as late as the last decades of the third century B.C., the archaeological evidence indicates that many villages and smaller settlements of the Classical Greek Period had by this time already been abandoned. For this reason, and also because no new settlements seem to have been founded, it is probable that the population was actually decreasing. Furthermore, the hill-fortresses lost their effectiveness when faced by armed bands like those with Philip V. By that time the province was noteworthy only for the number of captives and the amount of booty that could be snatched by an invader in the unprotected regions. Elis as a whole never actually recovered from its decline during this time.

In the Roman Era there is a show of vigor only at the city of Elis, at Kyllene, and perhaps at three or four of the old, fortified hill-towns, not to mention Olympia. Elsewhere, scarcely any vestiges of activity during this time have been found. Here and there a single building or two was set up, and at Koulougli a new little settlement of some sort was actually established, but, in general, it is clear that the conditions of life had become vastly changed since the Classical Greek Era.

Such, in brief, is a view of some aspects of the archaeology and history of Elis from the standpoint of the explorations of 1939. It will be obvious to all who are acquainted with Greece, and who are interested in the opportunities offered by explorations, how much work still needs to be done.

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## ARRETINE WARE BY PERENNIUS, FROM ENGLAND

THE kindness of Dr. C. T. Currelly, Director of the Royal Ontario Museum, Toronto, and of Mr. J. H. Classey, of the Museum's Department of Greek and Roman Antiquities, makes it possible to report one of the interesting items from their rich collection of terra sigillata.

GB 139 (fig. 1) "is an ancient purchase" and is labelled 'University of Toronto Collection,' which testifies to the hoary antiquity of the accession. It is somewhat less than half of a bowl: slightly everted rim with a plain band below it, a row of rosettes, then the signature in large raised letters around the circumference of the bowl, xMxPERE . . . . RANI. Beneath this inscription is a zone of acanthus (one in natural style, one formalized), alternating with human figures. Height 7.3 cm., diameter 10.6 cm. (Classey).

There are several parallels to the signature on this artistically unprepossessing vase: Dragendorff, *Bonn. Jahrb.* xcvi, 1895, pl. IV 21; Chase, *Catalogue of the Loeb Collection*, pls. IX 78, XI 138 139, XII 157, XX 220 (with 221 and pl. XXI 222); Oxé, *Arretinische Reliefgefäße vom Rhein*, pls. XXXI 123-128, LIV 249-251; Metropolitan Museum Inv. no. 17.194.2051 (fig. 2);<sup>1</sup> Antiquarium Comunale, Rome, Inv. no. 5082; Deutsches Archaeologisches Institut, Rome, Negative no. 31.1170 6, 8-11, illustrating five sherds in the Museo Artistico Industriale<sup>2</sup>—all of the foregoing being from Italy; and the fragment from Bicester, near Oxford, originally published by Haverfield in *Proceedings of the Society of Antiquaries*, 2 ser., xxi, no. II, pp. 461 f. and now by D. B. Harden in *V.C.H. Oxfordshire* i, who has generously contributed our fig. 3. This photograph shows clearly the letter G which formed part of a signature like that at Toronto.<sup>3</sup>

An earlier occurrence of the stylized acanthus leaf on the Toronto bowl is illustrated by Walters, *Catalogue of the Roman Pottery in the British Museum*, L 107, fig. 28,<sup>4</sup> and it appears on a number of the parallels cited above. The small human figures on our bowl (fig. 4, after Classey) are unfamiliar to me from other occurrences, but small statuesque figures of the same general school are rather frequent among the parallels.

Oxé calls this type of signature "late,"<sup>5</sup> but the date of the whole group is not as definite as might be wished. Future research will doubtless make it more precise. From the known fact that M. Perennius Bargathes succeeded M. Perennius Tigranus as proprietor of the establishment, it has been naturally assumed that every work of Tigranus antedates every work of Bargathes. The date of this presumed change of management was late under Augustus, but early enough for a small representation of Bargathes' products at Neuss and Köln before Arretine importation to Germany ceased altogether.<sup>6</sup> It is at least possible, however, that a signature of

<sup>1</sup> Illustrated by kind permission of Miss Gisela M. A. Richter.

<sup>2</sup> The negative from which the German Institute kindly made the print in my possession is so old that any attempt to reproduce it here could only be unsatisfactory.

<sup>3</sup> The lyre on the Bicester and Metropolitan Museum fragments is also the same.

<sup>4</sup> The lyre on this mould is not the same as on the Bicester and Metropolitan Museum fragments.

<sup>5</sup> *Op. cit.*, p. 33.

<sup>6</sup> Oxé, *op. cit.*





FIG. 1.—ARRETINE BOWL AT TORONTO



FIG. 2.—ARRETINE SHERD AT NEW YORK



FIG. 3.—ARRETINE SHERD FROM BICESTER, AT OXFORD

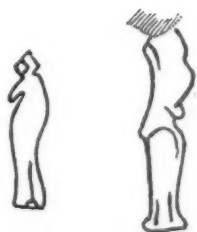


FIG. 4.—FIGURES ON  
GB 139

Bargathes at Berlin<sup>7</sup> may be earlier by a substantial interval; it appears on a plain cup of Oberaden Form 10 (Haltern Form 10a), a comparatively rare shape, in use at least as early as 8 B.C.<sup>8</sup> The decorated work hints in the same direction: one would suppose that if Bargathes' earliest artisans were identical with Tigranus' latest, they would have continued the same calibre of product. But the fact is that much of Bargathes' work is rather good, while much of Tigranus' is very bad. What is the explanation of the sudden and marked improvement?<sup>9</sup> Can it not be that Bargathes' shop was not merely successor to Tigranus', but also its younger contemporary, and that somehow Tigranus' shop went into a decline which did not affect Bargathes' workers? The question must be left in temporary suspense at this point, but it is relevant because of its chronological bearing on the last of Tigranus' works, of which we have representatives here and at Bicester. That these are late in the tradition of Tigranus is obvious, but the absolute chronology can be no more precise than "late Augustan."

As of 1920, all Italian sigillata signatures from Britain were listed by Oswald and Pryce, *Terra Sigillata*, p. 5,<sup>10</sup> and all Italian sigillata from London is discussed by the same authors in *Archaeologia* lxxviii, 1927, pp. 73-106, esp. 74-80, with illustrations.<sup>11</sup> Decorated sherds have been found subsequently at Leicester<sup>12</sup> and Margidunum,<sup>13</sup> and a small fragment of an Italian plate at North Ferriby, Yorks.<sup>14</sup> None of this is definitely attributable to any member of the Perennius shop.<sup>15</sup> Thus the fragment from Bicester in the Ashmolean Museum and the fragment from London at Toronto have an especial interest as being the first pieces of clearly Perennian work reported from Britain, and fortunately both are signed.

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<sup>7</sup> Altes Museum Inv. no. 4839.

<sup>8</sup> Oxé, in Albrecht, *Das Römerlager in Oberaden* i, p. 41, signed by Protus (Calidi); Oxé, *ibid.*, notes *Arci Sesti* in a circle, stamped on the same shape (Sels Coll.); see also Loeschke, *Mitt. aus Westfalen* v, 1909, pp. 149 f. for *C. Senti* (Haltern) and *Xanthus fec(it)* (Mainz).

<sup>9</sup> One needs no longer to refute the old notion that these men were artisans; they were capitalists. The most recent statement is by Dragendorff, *Festschrift für August Oxé*, pp. 1-8.

<sup>10</sup> See also Corder and Pryce's list of "localities where Romano-Gaulish pottery of pre-Claudian type has been found," *AJ.* xviii, 1938, pp. 275 f.

<sup>11</sup> See also Pryce in Royal Commission on Historical Monuments (England), *London* iii, *Roman London*, 1928.

<sup>12</sup> Oswald, *AJ.* xiii, 1933, pp. 58-59.

<sup>13</sup> Oswald, *AJ.* xx, 1940, pp. 282-85, but the context is Claudian, and the piece is regarded as "a survival or heirloom."

<sup>14</sup> Corder and Pryce, *AJ.* xix, 1939, p. 207. The date there suggested, ca. A.D. 10-30, is a trifle too late; ca. A.D. 0-15 would be better.

<sup>15</sup> The signature in Oswald and Pryce, *Terra Sigillata*, p. 5, is *P. Hert(ori)*; the Leicester fragment is by P. Cornelius; and the suggested Perennian origin of the Margidunum sherd is unsupported by clear parallels.

## SYMBOLISM OF THE "BATTLEMENT" MOTIF

THE DOUBT that Dr. Debevoise expresses ("The Origin of Decorative Stucco," *AJA.* xlv, p. 51, n. 40) concerning the symbolic meaning of the stepped half-lozenge (so-called battlement) in early Middle Eastern art merits further comment, not merely in relation to the specific point, but because of the more important problem of method and presuppositions involved. Dr. Debevoise says "*By Achaemenid times* (italics mine) the step battlement had become a decorative motif." But the seven-stepped battlement with what Dr. Debevoise calls (begging the question) "arrow-slots," repeated four times in relief, encircles a second-millennium B.C. Babylonian terracotta bucket with bail, in the British Museum, like lustral vessels illustrated in numerous contemporary ritual scenes. (Illustrated repeatedly: Dieulafoy, *L'Art antique de la Perse* iii, p. 23, fig. 9).

In using the phrase "*had become* (italics mine) a decorative motif" Dr. Debevoise is assuming that the form was originally practical and *became* decorative, and only decorative. It is true that practical objects (e.g. the comb) were sometimes assimilated to a symbol and endowed with its meaning, but there is no general rule and each such claim must be individually analyzed and demonstrated.

Furthermore, the assumption that any Middle Eastern pre-Islamic motive is merely decorative is always hazardous and must be accepted reluctantly and only as a last resort. Westerners, if they are to understand and interpret pre-Islamic Middle Eastern designs (not to mention the origins of much Islamic ornament), must remind themselves constantly that Near Eastern civilizations are traditional in character, and that cosmological religious conceptions were as fundamental and normal to their daily living as basic scientific assumptions are to ours. If an archaeologist or art historian doubts the symbolic value of any motive recurrent in the pre-Islamic Middle Eastern repertoires, he certainly cannot casually assume it, but must establish it with specific evidence. The presumption—supported by folk-lore, literature, daily speech and habits—is that these forms were originally symbolic and that in innumerable instances their symbolic character has been maintained even to the present day.

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## THE APPOINTMENT OF A GUARDIAN BY THE PREFECT OF EGYPT

IN THE *Zeitschrift für die Neutestamentliche Wissenschaft und die Kunde der älteren Kirche* xxxvii, 1938, pp. 191–195, I published a transcript, made by a French scholar, of a wax tablet which was in the possession of Maurice Nahman of Cairo about 1924, and was supposedly sold to the University of Michigan. As a search in 1928 revealed that it was not here, the publication of the transcript of the lost tablet was undertaken in the hope of locating the original. The attempt was successful and in June 1939 a letter from Mr. T. C. Skeat brought the information that the tablet was in the British Museum, where it has the number Add. MS 40723. Further correspondence with Mr. H. I. Bell, Keeper of Manuscripts in the British Museum, brought permission for me to republish the tablet, as well as photographs and Mr. Bell's original transcript of the tablet. The photographs, especially the infra-red one of the writing on the wood, are exceptionally good and are reproduced in figure 1, appearing with this article.

The preserved portion is from the first tablet of a diptych, and properly contains the beginning of the document on the inside wax, but contrary to the usual custom, the names of the witnesses and the beginning of the duplicate copy come on the outside wood of this tablet, rather than on the outside of the second tablet, but arranged as usual with the names of the witnesses at the top. The part of the tablet not covered on the inside with wax is split off from the left-hand edge, but without loss of text from the copy on wax. On the outside wood one name of a witness is gone and three or four letters from the beginning of each line of the outside copy of the document. The writing on the wood is a majuscule cursive, of exceptional care and distinctness; that on the wax is much smaller but nevertheless clear and of considerable elegance. It is badly disfigured by a large number of diagonal scratches running through the center of the tablet. The portion preserved is read as follows:

COPY ON WAX (FIGURE 1)

T. Flavius Titianus praef(ectus) Aeg(ypti) postulante  
 Publio Diodoro quo ne ab iusto tutore  
 t[u]tela abeat e leg(e) Iulia et T[iti]a et  
 ex s(enatus) c(onsulto) Erennia Antonia fil(iae) Lu-  
 5 ci Erenni Valentis M. N[um]isium  
 Longum legitimum tutorem  
 dedit                    h d e r e e t  
 s s s

### COPY ON WOOD (FIGURE 2)

T Flavius Titianus praef(ectus) Aeg(ypti)  
post]ulante Publio Diodoro quo  
at



FIG. 1.—COPY ON WAX



FIG. 2.—COPY ON WOOD AND SIGNATURES



ne ab] iusto tutore tutela abe  
 e le]ge Iulia e<t> Titia et ex s(enatus) g<sup>c</sup>(onsulto) E  
 5 ren]nia Antonia · fil(iae) Luci Ere[n]  
 ni Va]lensis M · Numisium Lon  
 gu]m legitimum tutorem

## WITNESSES

- 1 . . . . L . . . .
- 2 C Fufi Atte[
- 3 T . . bi Diadumeni
- 4 Cn Antusti Lapeth[i
- 5 L. Aureli Pudoris
- 6 C. Titi Hercu]l[ani
- 7 T E. n. . i Tib. . . . .

In most of the document there is little upon which to comment. The repetition of the same text on wax and wood, together with the perfectly preserved parallel, Bodleian Lat. ins. 10–11 (cf. *Bodleian Quarterly Record* ii, 22, 1919, p. 258), helps to make certain even the letters marked with a dot below, to show that they are not entirely legible. T. Flavius Titianus was prefect of Egypt from March 126 to June 132, according to Lesquier's<sup>1</sup> list, so the date of this tablet is approximately fixed. In line 3 on the wood, *at* was written in smaller letters above *be*. This removes the necessity of crowding five letters into the lacuna at the beginning of the next line. In line 3, both the original transcript, which I published, and Mr. Bell's transcript have omitted the first *t* of *Titia* from the copies on both wood and wax. It is certain that one *t* is omitted in the copy on wood, but on the wax there is space for the two letters and all seem fairly legible except the first *i* of *Titia*. At the end of line 4 on the wood, *ex s. g.* was first written and then corrected with a small *c* above the *g*. *Erennia Antonia* in both copies is an error for the dative.

The matter of most importance in the document and which also presents the most difficulty is the long abbreviation at the end of the copy on wax. In the copy on wood it came on the second tablet, now lost. This abbreviation is known from Bodleian 10–11 and P. Mich. 169, and a full discussion of previous attempts to expand it is given in *Michigan Papyri* iii, p. 162. The first successful attempt was made by Weiss, *Zeitschr. d. Savigny-Stift. f. Rechtsgesch.*, Rom. Abt. 49, pp. 260 ff., who, relying on the *Senatus Consultum de nundinis saltus Beguensis* and Apuleius, *De magia* 89, expanded the abbreviation *d(e) e(a) r(e) e(odem) e(xemplo) b(inae) t(abulae) s(criptae) s(unt)*. In my discussion (*l. l.*) I accepted this, but pointed out that certainly in P. Mich. 169 there could not have been two copies, one for the record office and the other for the mother registering the birth of her illegitimate twins, since the *lex Aelia Sentia et Papia Poppaea* expressly forbade the registering of illegitimate children at the public record office. The expansion made by Weiss is perfect, wherever it can be shown that two copies had to be made as in *CIL*. iii, 2, p. 950; *de qua re dua paria [t]abularum signatae sunt*, but in P. Mich. 169, and apparently in Bodleian Lat. ins.

<sup>1</sup> "L'Armée Romaine d'Égypte" (*Mémoires l'Institut Français d'Archéologie Orientale*, Cairo, 1918), pp. 509 ff.

10-11, there were not two separate copies of the documents made, but each document was copied twice on the same diptych. For that reason, in the discussion cited above I suggested *b(is)* for *b(inae)* in spite of the awkward order, and was inclined to expand *s. s.* as *s(upra) s(criptae)* instead of *s(criptae) s(unt)*.

We may now turn to the abbreviation as it appears on the wax of this tablet, which the French scholar had copied [.] *q r d e e | p . s . s [ . . . . . ]* and which Bell's transcript gives as .<sup>1</sup> *q r e e b<sup>2</sup> | t s s .<sup>3</sup>* For note (1) Bell reproduces the marks seen; for note (2) he states that "*b* can be read only with some violence to the character," and with note (3) he records the presence of a horizontal line, which he does not explain.

It is obvious that the previously published transcript from Cairo must be abandoned and that reconstruction must be based on Bell's reading, aided by the photograph. The first letter, which Bell leaves unidentified, is shown by comparison with *b* of *Publio* at the beginning of line 2 to be the bottom of a *b*. The slanting top stroke of this *b* was destroyed when the wax peeled off just above the remnants of the letter. The next letter *d*, though marked as doubtful by Bell, is clear in the photograph. The following *e* may be slightly doubtful, because the two slightly curved parallel strokes forming it are a little too far apart and the second one is too near the *r*, but it must be read *e*, since no other letter is similar. The following *r e e* are certain. The second stroke of the second *e* was prolonged, as if the scribe intended to end the line with that letter. If so, he changed his mind, for a slightly curved stroke cuts through this prolonged *e*. In spite of the parallel abbreviations of Bodleian 10-11 and P. Mich. 169, which influenced Bell, this must be the bottom of *t*, and the horizontal stroke forming the top is faintly seen just above, but not touching this curved bottom stroke. This reading is confirmed by the remnants of the three letters of the last line, which are identical, and so must be read *s s s*. Only *r* in this hand has a similar tail curving to the left and the tail of *r* is much longer. In *Erenni* of line 5 the first stroke of the first *n* has an *s*-like curve at the bottom, but only one other *n* in the document is similar, so this must be a rare form. In other cursive writing of this period the *s*, even if curved as here, often has a stroke added at the top. In this document that does not seem to occur. The tops of these last three examples have disappeared with the peeling off of the wax, and it may be that the long horizontal stroke at the end noted by Bell and visible in the photograph was such a top stroke for the last *s*, and was prolonged as a line-filler, because the scribe was reserving the second part of the document, the place, date, and acknowledgment, for the second tablet.

The abbreviation as I have printed it above shows slight variations from the stock abbreviation already known, but must be expanded similarly. The first letter, *b*, must be *b(is)* or *b(inae)* and *s s s* at the end must be *s(upra) s(criptae) s(unt)*. Furthermore, the fact that *s(upra)* must be read and that this is a double document, which required no duplicate for the public record office, determines that *b(is)*, not *b(inae)*, must be read at the beginning. The whole expansion thus reads *b(is) d(e) e(a) r(e) e(odem) e(xemplo) t(abulae) s(upra) s(criptae) s(unt)*. This is the original form of the abbreviation for a double document, which did not have to be duplicated. The similar abbreviation *d(e) e(a) r(e) e(odem) e(xemplo) b(inae) t(abulae) s(criptae) s(unt)* arose, when two copies had to be made, either because there were two parties

to the agreement, or because one copy had to be deposited in the record office. The double document, applying to one person and containing two copies of the same text on one diptych or diploma, was probably less common than simple agreements or documents filed for record. At any rate, by 145 A.D. (date of P. Mich. 169) the similar abbreviations had become identical and the form for an agreement between parties was used also in double documents affecting one individual only. This seems to have continued as the regular form, though it did not strictly answer the requirements, for it is used again in a double document in 198 A.D. (Bodleian 10-11).

The names of the witnesses were reported as illegible in the original, but considerable can be tentatively read in this infra-red photograph.

The first name was lost with the edge that split off, but the cognomen must have begun with *L*, as no other letter in this hand has a similar extension into the line below. For the cognomen of the second name, *Atellanus* or *Atteius* or *Attilius* may be compared. For the third witness the traces of the nomen are so faint that one can merely guess *Fabi* or *Fadi*. For the fourth witness I seem to read *Antusti* for the common *Antisti*. For the sixth witness *Hercul*], which seems sure, must be completed *Hercul*ani. For the seventh witness we may guess *T(itus)* for the praenomen and perhaps *Tib*erianus for the cognomen.

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## THE MEGARON AND ITS ROOF

THE architectural character and historical significance of the pre-Hellenic and Mycenaean megaron, as well as the possibilities of its cultural origin, are conditioned by the type of roof it had. Theoretically it may be argued from the existing ground plans that all megara had sloping roofs, that all megara had flat roofs, or that some megara, under specific conditions, were exceptions to either the sloping- or the flat-roof tradition. The question is, can all these assumptions be built, as they have been, on the same set of facts? In the early stages of architectural evolution, roofs were not archaeological afterthoughts, matters of individual choice, or for that matter, merely environmental necessities, which could be constructed upon any kind of structure. Externally they were the most distinguishing feature of the house, deriving their significance from cultural traditions, environmental habits and social ideas, while structurally they were, in their different forms, an integral part of particular types of building.

Apparently the megaron has come to mean all things to all men. Some scholars have limited it to a large communal hall, entered through a porch at the short end, and hence, when they have attributed its origin to the flat-roofed halls of Minoan palaces, have been untroubled to find the "megaron" in Crete only as a part of a complex of contiguous rooms and in Greece as a free-standing structure. It is not the intention of this article to review all the theories regarding the origin of the megaron; but in order to illustrate how the Cretan obsession has influenced these theories, it might be noted that Mackenzie, in deriving the megaron from Egyptian-Cretan halls, attributed its isolation to the environmental necessity of a fixed hearth when it moved to the colder mainland,<sup>1</sup> while Noack reversed the process by claiming that the northern megaron by the Mycenaean period gave up its gable for the flat roof as a result of Cretan influences.<sup>2</sup> Other scholars have based their reconstruction of the appearance of the megaron on their interpretation of the four interior points of support, which occur in the late and fully developed plans at Tiryns and Mycenae.

By themselves and apart from any consistent tradition of building, the imprint of four columns in a room is equally good evidence for several different kinds of structures: two rows of uprights for the support of a gable roof, bearing members for a flat roof, the interior boundaries of a rectangular hypaethral opening or light well, and the uprights necessary to carry a clerestory on a flat roof. Hence four interior columns, when found in a few small rooms at Palaikastro (fig. 1), do not make a "Cretan megaron" any more than a similar arrangement of supports in the houses of Tell el-Amarna (fig. 2) makes the megaron a flat-roofed structure of Egyptian origin.

The first question is to decide what a megaron was, and then see if one kind of roof, and not another, would have been a structural abnormality, or exception, on it. In order to make the discussion as short and visually demonstrable as possible, nearly all the evidence has been made graphic and the plans have been drawn to the

<sup>1</sup> D. Mackenzie, "Cretan Palaces II," *BSA*. xii, p. 250.

<sup>2</sup> F. Noack, *Ovalhaus und Palast in Kreta*, 1908.

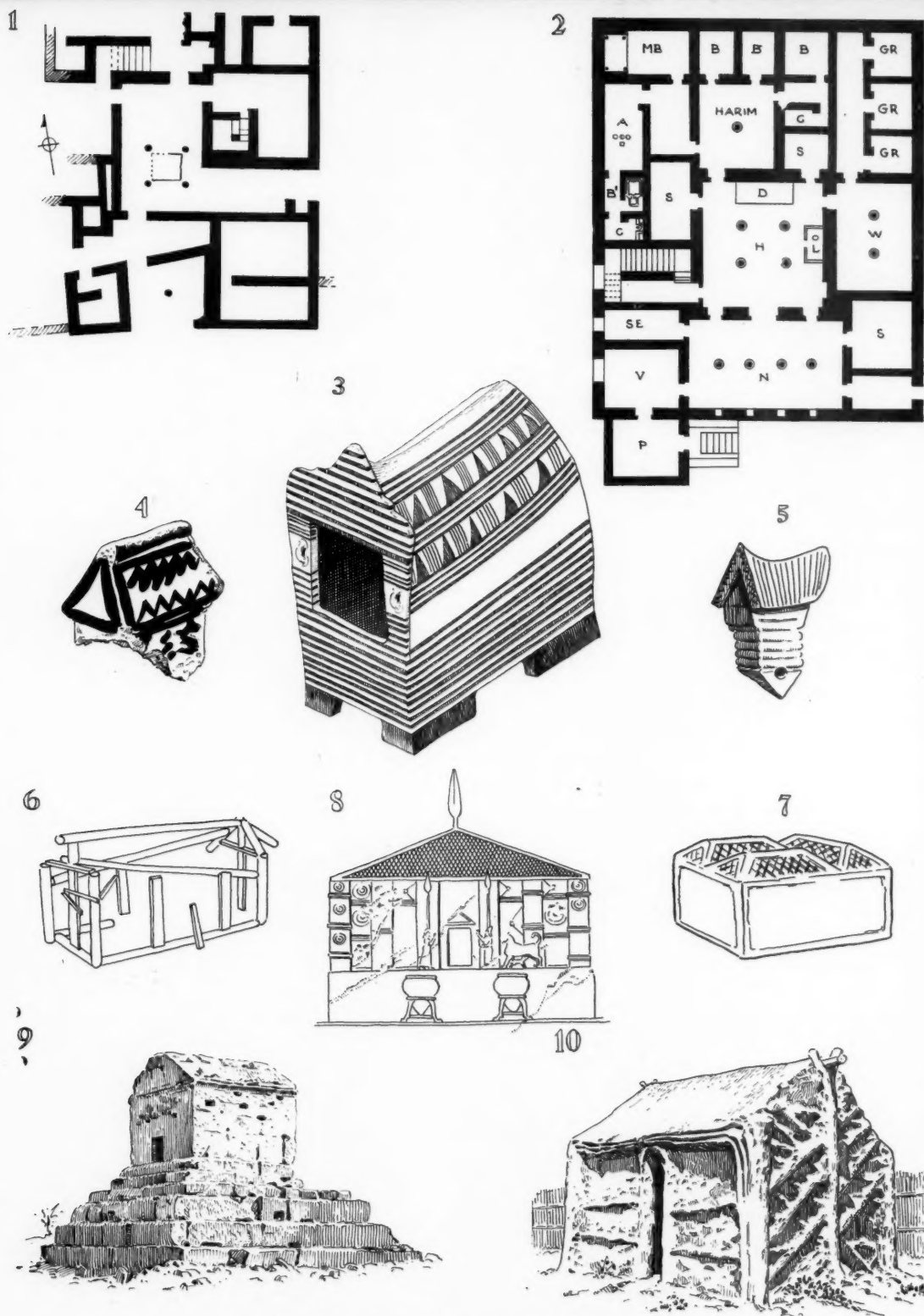


FIG. 1.—PALAIKASTRO, HOUSE B (*BSA.* ix, PL. VI)  
 FIG. 2.—TELL EL-AMARNA, HOUSE (SMITH, *Egyptian Architecture*, PL. LXVII)  
 FIG. 3.—HEDERAH, OSSUARY (*JPOS.* xvii, p. 15)  
 FIG. 4.—AL 'UBAID, TERRACOTTA (MALLOWAN AND ROSE, *Prehistoric Assyria*, FIG. 17)  
 FIG. 5.—TELL HALAF, STEATITE AMULET (MALLOWAN AND ROSE, FIG. 15)  
 FIG. 6.—UR, WOODEN COFFIN (WOOLLEY, *Royal Cemetery ii*, FIG. 81)  
 FIG. 7.—ABU RAWASH, IVORY MODEL (SMITH, *Ibid.*, PL. III/3)  
 FIG. 8.—MUSASIR, TEMPLE OF KHALDIA (HERZFELD, *Archaeological History of Iran*, p. 14)  
 FIG. 9.—PASARGADAE, TOMB OF CYRUS



common scale of 1:200. At least this assemblage of facts may help to counteract several influential factors which now formulate opinion on the subject: the universality of flat roofs in the present Aegean world, the tendency of recent scholarship to reconstruct everything Mycenaean in terms of Minoan culture, and the authority of most modern archaeologists who not only assume that the Mycenaean megara had flat roofs, either with or without clerestories, but also favor flat roofs for any newly discovered pre-Hellenic house.

*Postulate A.* As a working basis the following postulate is proposed as a definition of a megaron. *A megaron was (1) an isolated, (2) rectangular or apsidal structure used as a dwelling, at first for men and much later for divinities, (3) which consisted of a main hall, (4) entered usually, but perhaps not necessarily, at one end, (5) and commonly, in its developed stage, through an open porch with antae; (6) it may or may not have been large enough to require interior supports, which, when present, were set in several different ways, in order to carry the roof; (7) it originally had an interior hearth, frequently circular, associated with it, and (x) it was covered by a sloping roof.*

This postulate is probably generally acceptable to most scholars except for (x), for which many archaeologists would substitute (y), *it was covered by a flat roof with perhaps a clerestory or a hypaethral opening.* The issue is therefore reduced to whether (x) or (y) must be inserted into the equation. The reason for not limiting the megaron to a rectangular dwelling is because it was essentially similar to the isolated apsidal house and could in some cases have retained the apsidal ending as a survival of an earlier evolution from the curvilinear hut, or in other cases have acquired the apse from association with the persistent curvilinear tradition.<sup>3</sup>

*Postulates B.* In order to test these two hypothetical megara, one with an x and the other with a y roof, in relation both to the evidence and to the norms of primitive architecture, without having to discuss in detail the general tendencies of early architectural development the world over, it is necessary to set up certain tentative house postulates. These postulates, like the megaron ones, are only acceptable as probable working assumptions as long as they are not proved untenable. Inasmuch

<sup>3</sup> This linking of the megaron with the apsidal house, to which C. A. Boethius "Mycenaean Megara and Nordic Houses," *BSA*, xxiv, pp. 161-184, has objected, does not imply that there is evidence to prove that in Greece, Thessaly, or perhaps in any one region, the house evolved directly and logically from the circular hut, through the oval and apsidal, into the rectangular megaron. In Egypt, where the most primitive dwellings appear to have been the tent and the circular shelter, there are no known apsidal transitions to the rectangular house. In Greece and Palestine, as far as archaeological evidence goes, the apsidal house apparently came into use after the rectangular. On the other hand, it cannot be overlooked that primitive dwellings made of pliable and perishable materials would neither have lasted very long nor have left any permanent record. The transient character of most curvilinear structures may account in Neolithic Crete for the fact that there are extensive remains of burials and no villages to go with them. Also it is probable that such easy and natural methods of building light shelters persisted in every region long after the dominant minority had introduced more permanent building customs, and so kept alive the early house forms. It is, therefore, presumable that the apsidal house was at an early level in some regions and not in others a natural transition between the universal curvilinear huts of Neolithic men and the rectangular dwellings which either evolved out of them or were by intrusion combined with them. This assumption seems to fit the general tendencies of early architectural development better than Leroux's theory (*L'Édifice hypostyle*, p. 26) that the apsidal house, although the ancestor of the megaron, was imitated from cave dwellings. Whether related in origin or not, the apsidal house and the megaron are basically the same type in being isolated structures consisting of one communal room.

as the gable roof must have developed from the substitution of rigid timbers for the pliable materials of the bent roofs of primitive shelters, and because at any given period, when there were so many primitive survivals, it is impossible to argue for the gable as against the bent or even pyramidal roof, all roofs, other than flat ones, will henceforth be designated as sloping, except when the evidence for the gable is conclusive.

B-1. *The sloping roof at the earliest building levels was not an environmental feature designed to shed water. Instead, it was a universal type of covering, because builders were at first limited by inadequate tools to materials which were light and pliable.*<sup>4</sup>

B-2. *In its earliest forms the house which was roughly circular, or curvilinear, and consisted of only one room, had in it a hearth, usually circular because of the curvilinear shape of the shelters in which it was first used, and hence had some opening in its covering to take off the smoke.*<sup>5</sup> In the more temperate climates and during the warm seasons an out-of-doors hearth was used.

B-3. *As a generic type the shelter, whether round, oval or rectangular, was an isolated unit and as such at first had some kind of a sloping roof.*

B-4. *In the more temperate climates of the South, as in Egypt and Mesopotamia, where an advanced cultural development produced tools capable of cutting rigid timbers and a social organization which required more rooms, the flat roof by the fourth millennium was gradually substituted for the sloping hoop and domical roofs of straw and matting, and the fixed interior hearth disappeared, or was moved out-of-doors.*<sup>6</sup>

B-5. *At the same time that the shelter took on the flat roof, it also lost its simple unity and started to become a complex of contiguous rooms.*

B-6. *To the extent that B-1, 2 and 3 are always true, we should expect the fixed interior hearth to be associated with the isolated structure and the sloping roof, because such a building provided a simple and traditional means of ventilation which carried the smoke from the open hearth up and out through openings in the gabled ends.*

B-7. *Also we should expect in moving North to colder and damper climates, with snow in winter, to find the hearth and sloping roof persisting for environmental reasons, especially inasmuch as in such regions the problem of drainage would give added value to the sloping roof and isolated structure.*

B-8. *The megaron as an isolated structure with a single main room was nearer than the flat-roof house with its complex of rooms to the primitive conception of the house, and for this reason alone might be expected to keep some survival of its traditional sloping roof.*

B-9. *Because early man was instinctively conservative, always attached social and ideological values to his types of dwellings, and from them frequently developed his concepts of tombs and temples, we should expect that intruding and conquering overlords would jealously preserve the most distinguishing features of their venerated dwellings.*

Since the megaron is here considered as the natural evolution of a generic and perhaps more or less universal type of primitive dwelling, it may soften up some of the preconceptions regarding the prevalence of flat roofs to review very briefly

<sup>4</sup> G. Leroux, *L'Édifice hypostyle* 1913; E. Baldwin Smith, *Egyptian Architecture* 1938, pp. 19, 197; F. Oelmann, *Haus und Hof im Altertum*, 1927.

<sup>5</sup> Déchelette, *Manuel d'archéologie préhistorique* i, p. 348; Leroux, *Ibid.*, p. 2.

<sup>6</sup> Smith, *Egyptian Architecture*, pp. 19-20.

the evidence for the antiquity and widespread use of the gable, which by Dorian times was always associated with the megaron and its derivative temples. Considering the universality of sloping roofs on primitive shelters, there is no reason to think that the gable roof took shape only once in one region and then spread. China, as we know, with religious conservatism has preserved from earliest times a venerated type of isolated, wooden house, characterized by its accentuated gable roof and its structurally undivided interior. Like every other country of whose beliefs we have any record, China attached great ideological meaning to these architectural features, especially to the roof. Further West, in those regions which may at one time have had some influence upon the formation of pre-Hellenic culture, there is a house-shaped ossuary (fig. 3), from Hederah in Palestine, which dates from early in the fourth millennium;<sup>7</sup> in Mesopotamia, a terracotta model of a gabled house (fig. 4) from Al 'Ubaid,<sup>8</sup> dating early in the third millennium, and a wooden coffin in the form of a gabled house (fig. 6) from Ur.<sup>9</sup> The Second Dynasty coffin and its possible derivation from a house type is dubious evidence, but the small ivory model of a gabled house (fig. 7), discovered in an Old-Kingdom Tomb at Abu Rawâsh,<sup>10</sup> can only be explained as an intrusion in Egypt. It has been suggested that a steatite amulet (fig. 5), from Tell Halaf in northeastern Syria, depicts a gabled house,<sup>11</sup> and the excavators of the fourth-millennium settlement at Tall Arpachiyah in prehistoric Assyria believe that the houses there had some form of sloping roof.<sup>12</sup>

Slight as this early evidence may seem, the persistence, or at least the presence, of the gabled tradition in eastern Anatolia is attested by the temple of Khaldia at Muşasir (fig. 8), which is depicted on an Assyrian relief prior to 810 B.C., and shows that the gabled roof must have had special significance in the Caspian region, where later the Persians were temporarily settled before their conquest of the Mesopotamian valley.<sup>13</sup> The existence of what may have been an Iranian gabled-roof tradition is further suggested by the megaron-like tomb of Cyrus (fig. 9), while the tomb, or temple, towers of Nakchi Roustem and Pasargadae reproduce in permanent stone an earlier wooden type of tower-house with a flattened pyramidal roof.<sup>14</sup> Even today, in the region of the Persian Gulf, the members of the nearly defunct Mandaean cult build, according to a prescribed law of great antiquity, their *Mandi* cult houses (fig. 10) like primitive shelters of posts, bundled reeds and branches plastered with mud.<sup>15</sup> Although the cult itself probably originated in the Near East, its largest settlements were in Persia and its priests still believe that the *Mandi* was of Persian derivation. West of Persia in Asia Minor the gabled tradition, which is vital to the megara problem, will be discussed later.

EARLY MEGARA IN ASIA MINOR. The chronology of known megaron buildings in relation to their geographical distribution furnishes evidence both as to the origin of the megaron and its basic characteristics and so allows us to check the validity

<sup>7</sup> E. L. Sukenik, "A Chalcolithic Necropolis at Hederah," *JPOS.* xvi, 1936, p. 15.

<sup>8</sup> M. E. L. Mallowan and J. C. Rose, *Prehistoric Assyria*, fig. 17.

<sup>9</sup> Woolley, *Royal Cemetery ii*, p. 137, fig. 81. Woolley thinks there were many coffins of this type. He also found reed coffins with a pitched roof (pl. 85).

<sup>10</sup> Smith, *Ibid.*, p. 23.

<sup>11</sup> Mallowan and Rose, *Ibid.*, fig. 15.

<sup>12</sup> Mallowan and Rose, p. 30.

<sup>13</sup> E. Herzfeld, *Archaeological History of Iran*, 1935, p. 14.

<sup>14</sup> Herzfeld, *Ibid.*, pp. 35-37; T. Wiegand, *Palmyra*, pp. 83-84.

<sup>15</sup> E. S. Stevens, *Ancient Egypt*, 1934, pp. 39-48.

of the megaron postulate. One of the earliest known megaron, dating from the first half of the third millennium, has been recently found at Troy I. Here, sometime well before 2600 B.C., the ruling chief of the city lived in an *isolated* rectangular hall, 12.80 m. by 5.40 m., which had an interior *circular hearth* and an entrance porch at the west end.<sup>16</sup> With the exception of its unknown roof, this modest palace at the bridge-head between the East and the West conforms to the conditions of the postulated megaron, and according to House Postulates B-6, 7, 8 should have had a sloping roof. Blegen does not say why he assumes that it must have had a flat roof, but writes, "heavy beams long enough for a span of 5.40 m. were undoubtedly procurable; but it seems more likely that wooden posts were set up inside the megaron to help sustain the weight of the clay roofing." Instead of being the remains of successive flat roofs, "the many layers of carbonized material alternating with yellow clay and equalling about .50 m.," which were found on the floor, might just as well have been the débris of timbered gabled roofs plastered with clay. Dörpfeld advanced the idea for the megaron at Tiryns,<sup>17</sup> which has been accepted by many archaeologists, that clay would be washed away on a pitched roof. Aside from the problem of how men came to develop roof tiles of baked clay, if it was not the result of having first applied clay to their sloping roofs, there is both early and modern evidence to prove it was not impractical. Apparently the Neolithic house builders at Sesklo (p. 107) used clay on pitched roofs, as did the builders of the Lake Dwellings and Terramare huts in Italy,<sup>18</sup> the megaron builders of the Danube region (p. 109), and such moderns as the builders of the *Mandi* huts.

<sup>16</sup> Blegen, *AJA*, xli, 1937, p. 18. Since this article was written a disconcerting new megaron has been published (Garstang, *The Story of Jericho*, 1940, p. 48, fig. 5): Not only is its location difficult to fit into the otherwise comprehensible pattern of megaron development, but its date, ca. 5000 B.C. in the text and ca. 4500 B.C. in the chronological chart, is astounding. This Neolithic building



JERICO. STONE  
AGE MEGARON

of mud brick, which in proportions is so close to the pre-Hellenic megaron and in plan is so similar to a Greek temple, is an isolated structure, of which the central hall, with two interior posts as supports for the roof, is ca. 5.60 m. by 6.00 m. This main hall is entered through an ante-room, which has doorways flanked by engaged columns made of curved brick, and across the front of the megaron is a porch in antis, preceded by a portico of six wooden posts. Its floor was raised seven times and because of the votive figurines found in front of the entrance, it is considered to have been a house shrine connected with a pastoral cult. In spite of its lack of an interior hearth the building otherwise conforms to all the conditions of the postulated megaron, with the exception of its unknown roof. The presumption that it had a sloping roof is strengthened by the evidence that the sloping-roof tradition existed at Jericho as late as ca. 2000 B.C., for in the Second City Garstang uncovered a house with a party wall sixteen feet high, "indicating an original two- or three-storied building, and this in turn was later capped by a room with a sloping roof" (p. 79). Difficult as it is to fit this chronological and geographical sport into the megaron evidence, a ray of hope is held out by Garstang's suggestion that the archaeological evidence may support the old Jewish tradition which derived the sons of Shem from Arphaxad and the region of Lake Van, north of Nineveh, where in the ninth century B.C. there was still a gabled-temple tradition at Muşasir (fig. 8).

<sup>17</sup> Dörpfeld, *Tiryns*, p. 270.

<sup>18</sup> T. E. Peet, *The Stone and Bronze Ages in Italy and Sicily*, refers to the use of clay on sloping roofs of wattle (pp. 90, 93, 94); he describes the Lake Dwellers as living in isolated houses with sloping roofs of which "masses of clay with the imprint of beams and wickerwork are still to be seen" (p. 297); and says that the Terramare huts had sloping roofs made like walls with wattle of branches, twigs, reeds and leaves, "covered inside and out by a coating of clay" (p. 422).



Even though there are other megara which are probably earlier than the famous ones from Troy II, which date shortly after 2500 B.C., it is simpler to review this whole site rather than to return to it. These megara of Troy II are all isolated rectangular structures, with projecting antae at both ends (fig. 11). Megaron A, in the center of the group, with its circular hearth, has a span of 10 m., which makes it reasonably certain that there must have been interior wooden posts to carry the roof. The great size of this palace shows that the tradition must have been well established and the methods of construction far from experimental. Also the location of these megara at the intersection of the trade routes between Asia Minor and the Thessalian and Danube regions, as well as their conformity to the postulated megaron, furnishes a strong presumption in favor of a sloping roof for these Trojan palaces. There is no reason to assume that these buildings had hoop roofs<sup>19</sup> instead of gabled roofs, as has been suggested, because it can be shown that the gable was already in use on the megaron. Although it has been proposed that the use of *antae* at both ends of these buildings was copied from the projecting walls of log cabins, such as are still built today in Asia Minor,<sup>20</sup> it now seems evident that antae, to form a porch, were used before log cabins of projecting, horizontal beam construction were built. In leaving Troy, it is to be noted that the use of the isolated rectangular halls persisted down to Mycenaean times in Troy VI<sup>C</sup> (fig. 37).

Geographically, and perhaps culturally, the nearest site to Troy is Thermi, on the island of Lesbos.<sup>21</sup> Each of the five superimposed settlements are earlier than Troy II<sup>B</sup> and follow very closely the original house plans of Towns I and II, which date from about 3000 B.C. The houses are long, narrow rectangular structures, never more than 5 m. wide, and consist, according to the excavator, of one large communal hall and a closed ante-room at the entrance end (fig. 12). They have circular hearths, at times more than one to a house, and many circular pits (*bothroi*) which were used for the storage of grain and perhaps for the collection of water. All the houses are laid out parallel to one another, and since they are supposed to have had party walls, the excavator does not think that any of them were "true megara," not even the few structures from Town V which have antae, because they are not isolated. Hence they are assumed to have had a continuous flat roof. This conclusion is fully justified, if it is accepted that the houses at Thermi were contiguous dwellings. The fact that the long side walls of these apparently adjacent houses in all five superimposed towns are consistently parallel suggests that there were open enclosures between the covered dwellings. Nowhere in Mesopotamia and Egypt, where flat roofs were universal, was there this regular arrangement of long, hall-like dwellings and an absence of courts. While early men were not sensitive about sharing their quarters with the domestic animals, it is nevertheless difficult to imagine how the Thermiotes, with their goats, pigs and probably oxen, got along in both hot and cold weather in such a closely packed settlement without courts. It is still more difficult to imagine how they handled the drainage and endured the smoke in their houses, with at times two hearths to a house, if the buildings had flat roofs. Such arguments, however,

<sup>19</sup> L. B. Holland, "Primitive Aegean Roofs," *AJA.* xxiv, 1920, p. 334.

<sup>20</sup> C. A. Boethius, "Mycenaean Megara and Nordic Houses," *B.S.A.* xxiv, p. 182.

<sup>21</sup> W. Lamb, *Excavations at Thermi in Lesbos*, 1936.



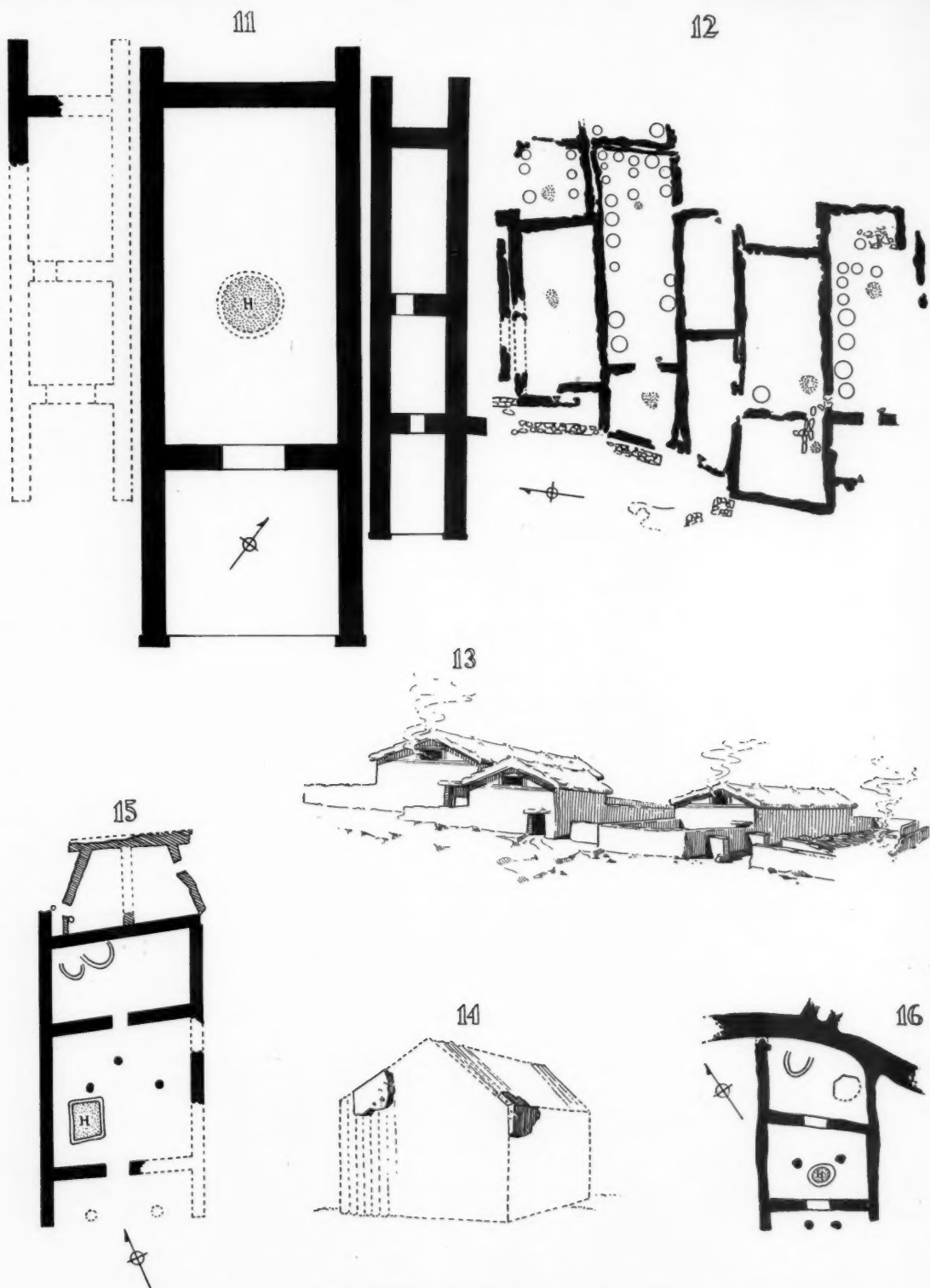


FIG. 11.—TROY II, MEGARA (DÖRPFELD, *Troja und Ilion*, FIG. 23)

FIG. 12.—THERMI I, LESBOS (LAMB, *Thermi*, PL. I)

FIG. 13.—THERMI, PROPOSED RESTORATION

FIG. 14.—SESKLO, CLAY FRAGMENTS OF NEOLITHIC HOUSE (TSOUNTAS, FIG. 17)

FIG. 15.—SESKLO, MEGARON (WACE, *Prehistoric Thessaly*, FIG. 34)

FIG. 16.—DIMINI, MEGARON (WACE, FIG. 38)

tend to beg the question, for the evidence at Thermi does not help to establish the characteristics of the megaron, and the suggested restoration (fig. 13) showing only alternate spaces enclosed as isolated dwellings covered with gabled roofs, makes it necessary to have some of the hearths and many of the storage pits in the open courts.

MEGARA IN THE THESSALIAN AND DANUBE REGIONS DURING THE NEOLITHIC AND BRONZE PERIODS. The early culture of Thessaly was related to the cultures of both Asia Minor and the Danube basin, and it should be noted that the megara of Sesklo and Dimini may have been earlier than even that of Troy I. At Sesklo, in its deepest Neolithic strata, Tsountas discovered clay fragments showing the imprint of vertical posts and the sloping gable edge of a clay wall (fig. 14) which he restored as an incipient megaron.<sup>22</sup> If this evidence is accepted, it associates the gable with the isolated rectangular megaron as early as 3000 B.C. or more, and shows that these Thessalian builders applied clay to a pitched roof. Also these fragments help to restore the plans of subsequent megara at Sesklo and Dimini. The Sesklo megaron (fig. 15) from Thessalian I consists of a porch (perhaps with columns in antis), a large hall with three irregularly spaced posts, an asymmetrically placed hearth, a back room, and a polygonal apse which may have been a later addition.<sup>23</sup> Nearby, at Dimini (fig. 16), and dating sometime between 3000 and 2500 B.C., is the megaron dwelling of the chieftain who ruled this early walled town.<sup>24</sup> It has a porch with two posts in antis, a central hall with a circular hearth and two supporting posts, and in the back a smaller room which contains a cooking oven. As far as the plans show, these very early Thessalian houses conform to the postulated megaron. Furthermore, the similarity of these northern Greek megara, apart from their materials, to the houses of the early Danubian cultures, where gable roofs can be clearly proved, is generally recognized.

During the period of Danubian I, which paralleled Thessalian I and is dated roughly between 3000 and 2500 B.C., the pitched roof on isolated trapezoidal houses was in use by the Körös culture in southeastern Hungary,<sup>25</sup> and by the Bükk culture in northeastern Hungary, whose people lived in isolated houses made of vertical posts covered with daub and wattle.<sup>26</sup> By about 2500 B.C., many groups related to the Danube cultures lived in megaron-like houses from the Danube basin to southwest Germany: along the Upper Alt the Oltenian culture at Erösd II had isolated rectangular houses (fig. 17), made of upright posts with daub and wattle walls, a hearth, or oven, in both the porch and main room, and gable roofs;<sup>27</sup> the Aichbühl I houses (fig. 20) were of the "megaron type with a gable roof" supported by stout posts and house 15 had projecting antae,<sup>28</sup> and at Goldberg the Rössen culture of

<sup>22</sup> Tsountas, ΔΙΜΗΝΙΟΥ ΚΑΙ ΣΕΣΚΛΟΥ, col. 32, fig. 17; Childe, *Dawn of European Civilization*, 1939, p. 57, mistook Tsountas' restoration for a model. While Tsountas undoubtedly found clay fragments which show the imprint of gable roofs made of saplings and reeds plastered with clay, his description is not entirely clear, because he seems to consider fig. 14, with its impression of saplings, as the upper side of fig. 13, which has the imprint of both saplings and reeds.

<sup>23</sup> Tsountas, *Ibid.*, p. 102; Wace, *Prehistoric Thessaly*, fig. 34.

<sup>24</sup> Tsountas, *Ibid.*, pl. II; Wace, *Ibid.*, fig. 38.

<sup>25</sup> V. Gordon Childe, *The Dawn of European Civilization*, 1939, p. 93.

<sup>26</sup> *Germania* xxi, 1937, pp. 213-217. <sup>27</sup> Childe, *The Danube in Prehistory*, 1929, p. 98, figs. 58, 59.

<sup>28</sup> R. R. Schmidt, *Jungsteinzeit-Siedlungen im Federseemoor*, 1936; W. Radig, *Der Wohnbau im Jungsteinzeit*, 1930; Reinerth, *Der Wohnbau der Pfahlbaukultur*; Childe, *Danube*, p. 166.

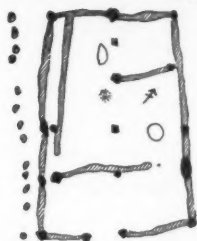
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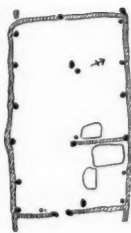
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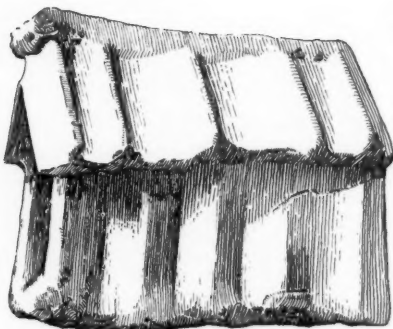
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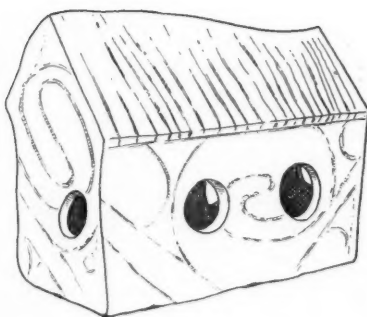
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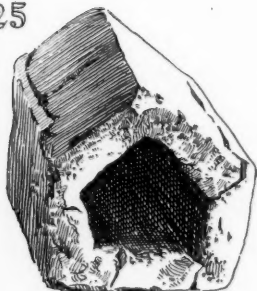
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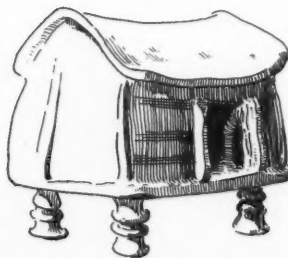
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FIG. 17.—ERÖSD II, HOUSE (CHILDE, *Danube*, FIG. 58)

FIG. 18.—GOLDBERG, HOUSE G RESTORED (BERSU, *Germania* XX, PL. 48/1)

FIG. 19.—GOLDBERG, HOUSE G (BERSU, FIG. 4)

FIG. 20.—AICHBÜHL I, HOUSE 15 (BERSU, FIG. 5)

FIG. 21.—JAISPITZ, HOUSE-URN (BEHN, *Hausurnen*, PL. 23)

FIG. 22.—WÜRTTEMBERG, HOUSE (SCHUCHHARDT, *Alteuropa*, FIG. 30)

FIG. 23.—KODZADERMEN, HOUSE-URN (BEHN, PL. 28)

FIG. 24.—STARZEDDEL, HOUSE 2 OF LAUSITZ CULTURE (SCHUCHHARDT, *PZ.* xvii, 1926, FIG. 9)

FIG. 25.—SALMANOVO, HOUSE-URN (BEHN, PL. 28)

FIG. 26.—GOLDBERG, HOUSE-URN (BERSU, *PZ.* x, 1918, FIG. 1)

Central Germany had megaron houses (fig. 19), one of which has an ante-room, an open hearth in the main living room and a covered porch (fig. 18) along the west side.<sup>29</sup> Closely related to the Goldberg houses is the megaron (fig. 22) at Württemberg which has a porch in *antis*.<sup>30</sup> Other early post houses of a general megaron character have been found at Nosswitz in Silesia and at Sarmsheim in Rhenish Prussia.<sup>31</sup> At Toszeg, in Hungary, during the Copper Age, the rectangular houses are reported as "reminiscent of the megaron,"<sup>32</sup> and by 1600 B.C., they had open porches and circular hearths in the main room.<sup>33</sup>

While it is certain that all these isolated northern houses had pitched roofs, it is not until the Danubian II period, which Childe dates from 2800 to 2300 B.C., that actual models prove what these megarons looked like. The house model from Jaispitz (fig. 21) reproduces an isolated structure made of vertical staves, plastered with clay, which was entered at the short end and was covered by a gable roof.<sup>34</sup> Another model from Kodzadermen (fig. 23) on the Lower Danube, and again dating before any known Greek *megara* outside Thessaly, is an isolated rectangular structure with a gable roof and decorated with spiral patterns of the kind known in the Aegean as "Cycladic."<sup>35</sup> There are three hut-urns from Salmanovo (fig. 25) in Bulgaria,<sup>36</sup> and the fragments of other urns have made it possible to reconstruct a model of a Neolithic house (fig. 27).

Somewhat later fragments of a hut-urn from Niezwiska show that some of the Bronze Age peoples of what is today Poland also lived in isolated houses of the megaron type with pitched roofs.<sup>37</sup> Even from such a brief outline, it is evident that the megaron was no sporadic intrusion in the north, but persisted throughout the Bronze Age. Between 1300 and 1000 B.C. the Lausitz people (fig. 24), east of the Elbe, lived in villages consisting of isolated log cabins, plastered with mud, which were laid out "like a Mycenaean megaron," with a pillared porch, a hearth in the great hall, and a gabled roof.<sup>38</sup> In fact, many of the Lausitz megaron halls were as large as those at Tiryns and Mycenae. Therefore, the evidence sustains House Postulates B-3, 6, 7, 8 and shows conclusively how all the essential features of the postulated megaron—*isolation, communal hall, hearth, porch and gabled roof*—were widely and persistently characteristic of houses in the Danube valley and adjacent regions before and after the megaron appeared in Greece. It does not, however, necessarily follow that the megaron was of Danubian origin. Even though it is not the purpose of this survey to review the theories as to the Nordic, Germanic, Aryan or Anatolian origin of the megaron,<sup>39</sup> for there is still the possibility that the

<sup>29</sup> G. Bersu, "Rössener Wohnhäuser von Goldberg," *Germania* xx, 1936, pp. 229-243.

<sup>30</sup> C. Schuchhardt, *Alteuropa*, 1919, fig. 30.

<sup>31</sup> Childe, *Danube*, p. 42.

<sup>32</sup> Childe, *Danube*, p. 220.

<sup>33</sup> Childe, *Danube*, p. 265, fig. 144.

<sup>34</sup> F. Behn, *Hausurnen*, 1924, pl. 23c; Childe, *Danube*, fig. 44.

<sup>35</sup> Behn, *Ibid.*, pl. 28 f.; Childe, *The Dawn of European Civilization*, 1939, fig. 66; *AM.* xlii, 1919, p. 140.

<sup>36</sup> Behn, *Ibid.*, pl. 28 a-c.

<sup>37</sup> J. P. Preston, "Excavations at Niezwiska," *LAAA.* xvii, 1930, p. 25.

<sup>38</sup> Childe, *Danube*, p. 325; C. Schuchhardt "Witzen und Starzeddel," *PZ.* xvii, 1926, p. 194.

<sup>39</sup> R. Henning, *Das Deutsche Haus*, 1882; K. G. Stephani, *Der älteste Deutsche Wohnbau*, 1902; W. Schulz, *Der Germanische Haus in vorgeschichtlicher Zeit*, 1923; F. Behn, "Beiträge zur Urgeschichte des Hausen," *PZ.* xi, 1919, pp. 70-101; Paul Sarasin, *ZfE.*, 1907, pp. 57-79; Karl Fuchs, *Globus*, 1905, p. 85; F. Cordenons, *La Casa ariana*, 1904.

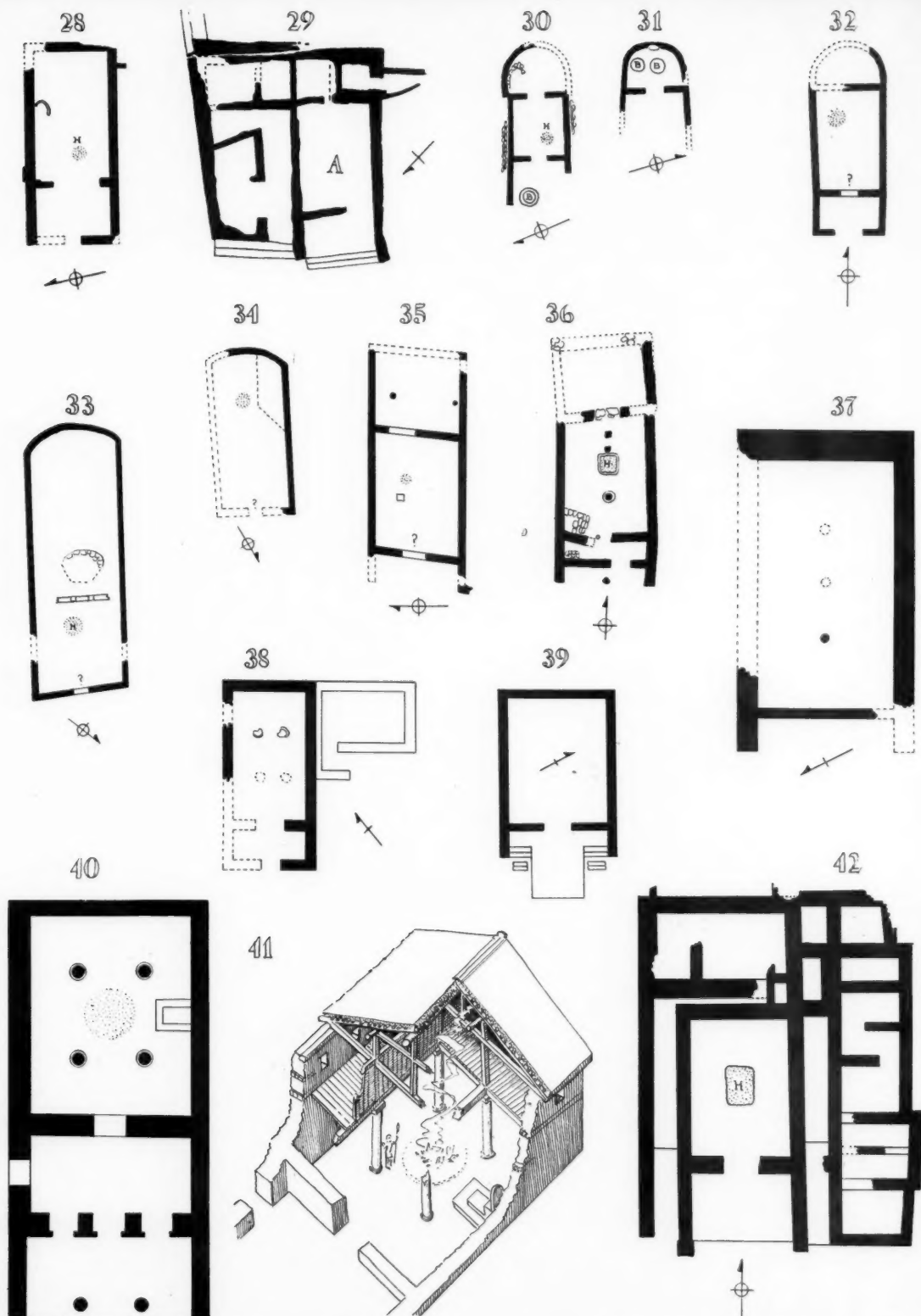


FIG. 28.—EUTRESIS, M.H. HOUSE "A" (GOLDMAN, *Eutresis*, FIG. 42)  
 FIG. 29.—ASINE, M.H. HOUSE "D" (FRÖDIN AND PERSSON, *Asine*, FIG. 49)  
 FIG. 30.—EUTRESIS, M.H. HOUSE "C" (GOLDMAN, FIG. 37)  
 FIG. 31.—EUTRESIS, M.H. HOUSE "X" (GOLDMAN, FIG. 39)  
 FIG. 32.—KORAKOU, M.H. HOUSE "F" (BLEGEN, *Korakou*, FIG. 110)  
 FIG. 33.—RAKHMANI, L.H. HOUSE "P" (WACE, *Prehistoric Thessaly*, FIG. 19)  
 FIG. 34.—RAKHMANI, L.H. HOUSE "Q" (WACE, FIG. 17)

FIG. 35.—KORAKOU, L.H. III HOUSE "H" (BLEGEN, FIG. 112)  
 FIG. 36.—KORAKOU, L.H. HOUSE "L" (BLEGEN, FIG. 112)  
 FIG. 37.—TROY VI, L.H. III MEGARON  
 FIG. 38.—KRISA, L.H. MEGARON (*BCH.* 61, 1937, FIG. 15)  
 FIG. 39.—ELEUSIS, L.H. MEGARON (*Δελτ.* 1930-31, p. 20)  
 FIG. 40.—TIRYNS, L.H. III MEGARON (CIRCULAR HEARTH)  
 FIG. 41.—TIRYNS, PROPOSED RESTORATION  
 FIG. 42.—PHYLAKOPI MEGARON (*JHS. SUPPL.* 4, 1904, FIG. 49)



megaron was a natural evolution of the isolated primitive house which took shape, with many similar characteristics, in several separate areas, the consistency of this northern evidence cannot be disregarded when it comes to reconstructing the decapitated remains of pre-Hellenic and Mycenaean megara. In view of the successive invasions of Greece by Minyans, Achaeans and Dorians from the northerly regions, it would be curiously exceptional if the megaron at one time, and not at others, should depart from its basic characteristics and take on the flat roof.

MEGARA IN GREECE. During the Early Helladic period, that is, from sometime near the beginning of the third millennium down to about 2000 B.C., there is no conclusive evidence of a megaron house in Greece. Instead, there is a most disconcerting variety of house types, ranging from round and oval to rectangular. While it is tempting to suggest that at this cultural level any isolated dwelling raises the presumption of a sloping roof, there is undoubtedly evidence to indicate that the flat-roof tradition was already established in Greece. At Eutresis, for example, the earliest houses had thick walls of about 0.50 m. and a span of only 4.25 m., while many of them were trapezoidal in plan and had semicircular hearths built against the side walls, which made flat roofs possible because of a lateral escape for the smoke.<sup>40</sup> At Zygouries houses "W" and "S," with their irregular complex of rooms, and houses "D" and "A," with their thick walls, their lack of hearths and their entrances at the side,<sup>41</sup> either suggest a flat roof, or are not close enough to the postulated megaron to be considered as evidence.

At the opening of the Middle Helladic period, however, a very definite change is apparent in both the culture and the architecture at Eutresis. House "A" (fig. 28), with its thinner walls, its central hearth and main hall, preceded by a vestibule, conforms to all the requirements of a megaron and so presupposed a sloping roof.<sup>42</sup> In the vicinity of this megaron at Eutresis, Miss Goldman found fragments which show the imprint of saplings and reeds and indicate a relatively light roof of about six inches in thickness.<sup>43</sup> Because of this lightness and the similarity of these roofing fragments to those from Sesklo, it is permissible to assume a pitched roof. The evidence of a Middle Helladic megaron at Asine (fig. 29) is not so conclusive, because the main building seems to be part of a complex of rooms which conceals its essential characteristic of isolation, but if the space to the left of megaron A is restored as a court with a covered shed at one side and a pair of square rooms at the end of both the court and the great hall, then the isolated megaron with its porch in antis becomes evident. The excavators consider these buildings at Asine to have been megara and apparently believe that they were gable-roofed.<sup>44</sup> In addition to the rectangular megaron, apsidal megara become common in this period: at Eutresis houses "C" and "X" (figs. 30, 31) have circular hearths and thin walls,

<sup>40</sup> H. Goldman, *Excavations at Eutresis in Boeotia*, 1931.

<sup>41</sup> C. W. Blegen, *Zygouries*, 1928. Houses "W" and "S," fig. 14, house "D," fig. 5, house "A," fig. 7.

<sup>42</sup> Goldman, *Ibid.*, p. 37, fig. 42.

<sup>43</sup> Goldman, *Ibid.*, p. 62, fig. 71; Blegen (*Zygouries*, fig. 12) publishes two fragments of clay roofing from the "House of the Pithoi" which show the imprint of saplings and reeds. The excavator says that "the roof itself was undoubtedly flat," but in the photograph one fragment appears to have a marked slope of nearly 30° in relation to the line of supporting saplings.

<sup>44</sup> Frödin and Persson, *Asine*, 1938, p. 72, fig. 49.

or double walls in the case of house "C," which led Miss Goldman to assume a sloping roof;<sup>45</sup> and later, at Eleusis, there are four apsidal plans, of which Mylonas writes: "the foundation walls of the apses are very narrow, averaging 0.30 m. in thickness so that they could not support a heavy roof."<sup>46</sup>

Whether or not the premise (Postulate A-2) that the apsidal house was one type of megaron is acceptable, there is ample evidence to justify the additional postulate that *all apsidal houses had sloping roofs*. In the first place, all the numerous and widespread house-urns and house-models with apsidal ends, even as late as the Geometric period in Greece (fig. 48), have sloping roofs, a fact which indicates that this type of house was derived from the primitive curvilinear huts with bent roofs made of pliable materials. Also it is significant that the apse throughout antiquity consistently preserved the tradition of a sloping roof. Furthermore, in addition to the thin wall construction of all apsidal buildings, it is impossible to imagine that at any time the semi-spherical covering of the apse, which was of the same width and height as the rest of the building, would have risen above a flat roof on the rectangular part of the structure. Therefore, if all apsidal structures had sloping roofs, it is unnecessary to review all the examples from the Middle and Late Helladic periods,<sup>47</sup> for the type, as we know, persisted in Greece down to Hellenistic times.<sup>48</sup> Moreover, if one type of isolated and single-room dwelling, which was so similar to the megaron, always preserved the sloping roof from earliest times down to the Hellenistic age, is it not likely that the rectangular variant also preserved the same kind of roof?

By the Late Helladic, or Mycenaean period, the megaron appears to have been more widely distributed in Greece and at the same time more fully developed. At Korakou (fig. 35), house "H" has a porch in antis, as did the third-millennium megara of Troy and Northern Europe, and an interior hearth;<sup>49</sup> and house "L" (fig. 36), in addition to a porch in antis and an interior squarish hearth, has a single row of supports with one post in antis.<sup>50</sup> At Krisa (fig. 38), the Late Helladic III megaron, although small, has the more advanced interior arrangement of four interior supports.<sup>51</sup> While all these houses now conform to the essential characteristics of the postulated megaron, it does not strengthen the case for the gable roof to pile up examples,<sup>52</sup> because at this point everything depends upon what kind of a roof—flat, hypaethral, clerestory, curved or gabled—is hypothesized for the great

<sup>45</sup> Goldman, *Ibid.*, p. 34, figs. 37, 39.

<sup>46</sup> G. E. Mylonas, "Eleusis in the Bronze Age," *AJA.* xxxvii, 1932, p. 116.

<sup>47</sup> At Korakou (fig. 32), an apsidal house of the Middle Helladic period in Southern Greece has thin walls and a circular hearth in the main room (Blegen, *Korakou*, p. 76, fig. 110). In Thessaly, two Late Helladic houses of this type at Rakhmani (figs. 33, 34) have very thin walls in relation to their span and circular hearths; house "P," in addition to a hearth in the communal hall, has another in the vestibule, as did the northern houses of the Oltenian culture (Wace, *Prehistoric Thessaly*, p. 37, fig. 17). Many apsidal houses of perishable construction probably existed in the early periods, but from the excavated remains the type appears to have been rare in the early phases of the culture (Orchomenos, Olympia, Thermion and Paros), then became more common during the Middle and Late Helladic periods, persisted into the Geometric period (Lesbos and Eleusis) and lasted throughout the Classic age.

<sup>48</sup> *JHS.* 1933, p. 282.

<sup>49</sup> Blegen, *Korakou*, 1921, p. 91, fig. 121.

<sup>50</sup> Blegen, *Ibid.*, p. 80, fig. 112.

<sup>51</sup> Jannoray et van Effenterre, *BCH.* 61, 1937, p. 316, fig. 15.

<sup>52</sup> While only the most characteristic megara have been included, it is curious that there are not more examples.

megara of Mycenae and Tiryns, unless these two palaces are taken to have been exceptions to the general tradition of isolated buildings. There would be no reason for this article, were it not for the fact that the advocates of flat roofs for these buildings<sup>53</sup> outweigh in number and authority the defenders of the gable tradition.<sup>54</sup>

It must, of course, be granted that the complex of rooms around these Mycenaean megara were flat-roofed structures, reflecting the influence of Minoan culture. The megara were Late Helladic III structures, built into the complexes of the palaces, perhaps for the new Achaean overlords. In each case, however, the great halls with their interior circular hearth preserve their isolation. Only one of these megara is larger than the third-millennium palace at Troy II: the Tiryns one (fig. 40), not including its deep vestibule, measures 11.81 m. by 9.86 m. and has walls 1.25 m. thick, while the Mycenae structure is 13 m. long and 12 m. wide. In both buildings the four interior columns are not evenly spaced: at Mycenae the spans from front to back are 3.60, 4.40, and 3.60 m. and from side to side 3.25, 3.90, and 3.25 m., while at Tiryns they are 2.90, 4.75, 2.90 m. from end to end and 2.60, 3.40, and 2.60 m. from side to side. This interior spacing of the supports may have some bearing on the roofing. Holland pointed out that these irregular spans were unreasonable in a room covered with a continuous flat roof because, "it would involve the use of considerably heavier material to cover the larger central area than would be necessary if the spans were evenly apportioned."<sup>55</sup> He also argued against a continuous flat roof because, "unless the ceilings were extremely high or had outlets in them for the smoke, the Halls of Homer must have been almost uninhabitable," and against a clerestory, "because it could not safely have been borne by beams 4.50 m. in length resting on isolated columns." Therefore, he favored a rectangular hypaethral opening in the flat roof, the size of the space between the columns.

If the structural impossibility of supporting a clerestory on beams 4.50 m. long were certain, which it is not,<sup>56</sup> then the inevitability of a gable roof as the only practical solution would be evident, for Wace, who advocates a clerestory, understates the case against an hypaethral opening 4.40 m. x 3.90 m. by saying that such a large opening in a flat roof would be, "extremely inconvenient in the rainy season, when a fire on the hearth would be most needed."<sup>57</sup> Were a clerestory impossible and an hypaethral opening impractical, then the only compromise would be a gable roof with openings at the ends to take off the smoke. This solution, however, was not a compromise, but an essential part of the megaron tradition. Why then should it be discarded merely because there was much Minoan influence upon the mainland?

A gabled restoration (fig. 41) of one of these Mycenaean megara, based upon Greek

<sup>53</sup> Dörpfeld, *Tiryns*, p. 310; Tsountas, *The Mycenaean Age*, p. 54; *P. & C.* vi, p. 689; Holland, *AJA.* xxiv, 1920, p. 332; Wace, *BSA.* xxv, p. 196; K. Müller, *Tiryns* iii, p. 190.

<sup>54</sup> Fiechter, *RE.* vii, p. 2537; Reber, *ABA.* xxi, 1898, p. 498; Schuchhardt, *Alteuropa*, p. 214; Leroux, *L'Édifice hypostyle*, p. 48.

<sup>55</sup> Holland, *BSA.* xxv, p. 277.

<sup>56</sup> Structural estimates for a clerestory 15' x 13' with 6" of clay at 130 lbs. per cubic foot, 3" saplings at 40 lbs. per cubic foot and side walls of sun-dried brick at 120 lbs. per cubic foot give an estimated weight of 24,000 lbs. If the supporting beams were of soft pine, with an allowable strength of 720 lbs. per sq. ft., which has a modern safety factor of 8, beams 9" x 9" would give an ultimate strength of 5760 lbs. per sq. ft. Therefore, if 5,500 lbs. were added to the weight of the roof to take care of 6" of rain or snow, then beams 11" x 11" would give ample support for the weight of the clerestory.

<sup>57</sup> Wace, *BSA.* xxv, p. 278, n. 2.

survivals of megaron construction, would supply second-story sleeping rooms which in time of war could be used for defense, would make the central portion a "lofty pillared" and "high roofed hall" with its columns set far enough apart so that the flames from the central hearth would not endanger the galleries and cross beams, and, above all, would take off the smoke through openings in the gabled ends. The introduction of openings at the gallery level goes against the belief that there were no windows in the megaron,<sup>58</sup> but there seems to be no evidence which makes such openings impossible, and some evidence, such as the openings in house-models and the indication of windows in the gabled house-like tombs of Ras Shamra (fig. 47), to suggest their existence. To deny, then, the probability that these carefully isolated Mycenaean megara, with their great central hearths and open porches, had gabled roofs raises the improbability that the Mycenaean chieftains, especially the later Achaean overlords, who presumably came from the North, gave up the most distinguishing and essential part of their northern house tradition under Minoan influence from Crete. Even in Crete, when the actual megaron appears very late, as at Phylakopi (fig. 42), it preserves its isolation and is of a different span and scale from the regular halls of Minoan architecture, thereby suggesting that it also preserved its gabled roof. In describing this late megaron at Phylakopi, Mackenzie writes, "both the megaron and the pottery found in it were the creation of strangers," the work of mainland peoples who were the last rulers of Phylakopi.<sup>59</sup> It is, of course, always possible to argue that any one Mycenaean megaron was an exception to the rule and had been adapted, for one or more reasons, to the southern tradition of the flat roof. Certainly by about 800 B.C. the structure at Tell Tainat, near Antioch in Syria, seems to be an adaptation of a Mycenaean hall and vestibule to the flat-roofed tradition, because the walls are 2.1 m. thick.<sup>60</sup> All that this article can hope to sustain is the presumption that the gable normally went with the megaron.

The reasons for insisting upon the pitched roof during the Mycenaean period are not all based upon postulates and tradition. This late pre-Hellenic period still knew and apparently revered the gable. Tombs in primitive times were frequently thought of as eternal dwellings and, therefore, preserved in stone the essential characteristics of house types. While the great variety of tomb forms in the Mycenaean age reflects the survival and mingling of many different mortuary customs, there are many rock-cut chambers with either crudely curvilinear ceilings or actual pitched roofs. The earliest example is the Middle Helladic Tomb (fig. 45) at Asine which has a "chamber cut in the form of a house with a gable," which, according to the excavators, "supplies fresh evidence that the megaron had a gabled roof."<sup>61</sup> Other and later examples have been discovered at many widely separated sites,<sup>62</sup> but the most ob-

<sup>58</sup> Fiechter, *RE*, vii, col. 2536.

<sup>59</sup> D. Mackenzie, "Excavations at Phylakopi," *JHS*, Suppl. Paper No. 4, 1904, p. 270; the L.M. II palace at Hagia Triada, built after the destruction of the Minoan city, and the L.M. megaron at Gour-nia both seem to be intrusions from the mainland which preserve their isolation.

<sup>60</sup> C. W. McEwan, "The Syrian Expedition of the Oriental Institute," *AJA*, xli, p. 13, fig. 4.

<sup>61</sup> Frödin and Persson, *Ibid.*, p. 358, fig. 139.

<sup>62</sup> Other examples of tomb chambers with gabled ceilings, in imitation of house forms, as Tsountas pointed out (Tsountas-Manatt, *Mycenaean Age*, p. 70), are on the Aspis at Argos (Vollgraff, "Fouilles d'Argos," *BCH*, 1904, p. 372); Cyprus (O. Richter, *Kypros*, pl. 189, and Gjerstad, *SCE*, ii, figs. 7, 47); Dendra (A. W. Persson, *Royal Tombs at Dendra*, figs. 54, 65); Kamiros in Rhodes (*RA*, xxvii, 1895, p.



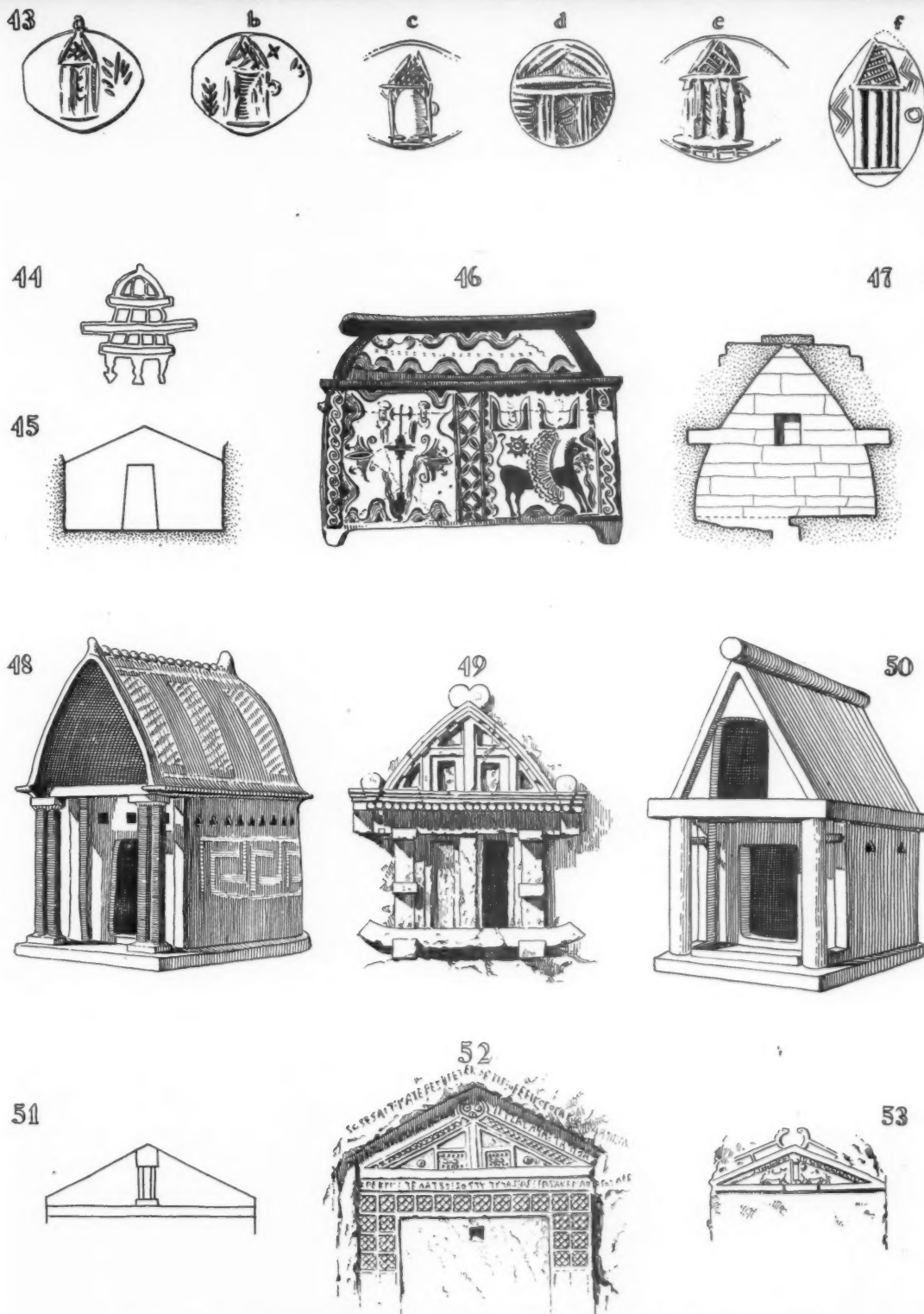


FIG. 43.—SEALS: *a-b* (FURTWÄNGLER, *AG.* PL. IV, 3, 5); *c-f* (EVANS, *PM.* i, FIGS. 493, 494)

FIG. 44.—PHAESTOS DISK, HOUSE SIGN

FIG. 45.—ASINE, TOMB 1 (FRÖDIN AND PERSSON, *Asine*, FIG. 139)

FIG. 46.—PALAIKASTRO, OSSUARY (*BSA.* viii, PL. XVIII)

FIG. 47.—RAS SHAMRA, TOMB 1 (SCHAEFFER, *Ugaritica* iii, FIG. 80)

FIG. 48.—PERACHORA, HOUSE-MODEL (PAYNE, *Perachora*, PL. A)

FIG. 49.—MYRA, LYCIA, TOMB (*P. & C.* v, FIG. 264)

FIG. 50.—ARGIVE HERAEION, HOUSE-MODEL

FIG. 51.—ISKELIB, TOMB (*P. & C.* v, FIG. 147)

FIG. 52.—DELIKLI-TACH, PHRYGIA (*P. & C.* v, FIG. 58)



vious house types are seen in the tombs of the fourteenth to the thirteenth centuries at Ras Shamra in Syria (fig. 47), which reproduce houses with windows and sloping roofs.<sup>63</sup> Another possible survival of the gable tradition in the mortuary forms of the period are to be seen in the terracotta sarcophagi found in Crete (fig. 46), which have gabled roofs with an accentuated ridge pole.<sup>64</sup> Many writers have interpreted these Cretan larnakes, like any house-urn, as reproductions of house types.<sup>65</sup> In denying that they were copies of primitive dwellings, Evans claimed that they were merely derived from Egyptian coffin types,<sup>66</sup> even though there are no Egyptian sarcophagi with ridge poles and perhaps regardless of the fact that the Egyptians themselves thought of their sarcophagi as house forms.<sup>67</sup>

Even in Crete there is further evidence of a gabled tradition, for a group of seals depicts some kind of an important shelter with a sloping roof. Two impressions, published by Fürtwängler,<sup>68</sup> show pitched-roof façades with post supports and cross-hatched gables (fig. 43 a-b). Four other seals (fig. 43 c-f), dated by Evans from Middle to Late Minoan times, offer very clear evidence that the sloping-roof tradition not only existed in Crete, but was sufficiently valued to be carved laboriously upon small gems.<sup>69</sup> Evans suggests that one, at least, of these seals represents a circular rustic shrine (fig. 43 c), with a conical, but none the less sloping, roof. On another, however, it was the obvious intent of the engraver to reproduce a large building made of heavy, tree-like supports with forked capitals and a hatched gable, which implies a rectangular structure (fig. 43-e). Needless to say, all these buildings are very different from the flat-roofed and hypaethral shrines usually associated with Minoan worship. Regardless of what these buildings were and for whom they were carved, it is perhaps significant that out of the relatively small number of buildings reproduced upon pre-Hellenic seals, six should preserve an undoubtedly venerated gable tradition. They cannot be disregarded as important evidence, and at least they help to relieve the Dorians of the unlikely responsibility of having introduced and popularized the gabled megaron.

188, fig. 2); Tomb of Isopata (Evans, *Prehistoric Tombs of Knossos*), Mycenae (Ép. 1888, col. 152); Phylakopi (*JHS*, Supp. 4, Tombs 7 and 13), and Spata (Montelius, *La Grèce Préclassique*, p. 165).

<sup>63</sup> C. F. A. Schaeffer, *Ugaritica* iii, figs. 78, 79, 80, 87.

The Ras Shamra tombs, like the much earlier ones at Mari (A. Parrot, *Syria* xviii, pp. 56, 61, pl. VII/2), raise the difficult question of whether these stone vaults, cut and laid to a pointed hoop shape, were merely the continuation of vaulting traditions which had originated in the brick construction of the East, or were perhaps stone replicas of an earlier and traditional house type, such as the house model from Hederah (fig. 3), which has a pointed bent roof of pliable materials. There has been the natural modern tendency to assume that architectural forms in early times were more the product of structural ingenuity than of conservative ideology. It now seems possible, if not probable, that the first sepulchral tunnel vaults of brick in Mesopotamia (Andrae, *Das Gotteshaus und die Urformen des Bauens im alten Orient*, p. 63) and later in Egypt (Smith, *Egyptian Architecture*, pp. 55, 89, 117) were given their curved form more because of a desire to reproduce the shape of the primitive hoop-roofed dwelling as an eternal "subterranean hut" than to protect the underground chamber. Certainly the Ras Shamra tombs were house concepts, made everlasting in cut stone, and by the seventeenth or sixteenth centuries, when the first of these tombs was built, the idea of making the house of the dead an eternal structure of stone was fully established in all the regions which had any contact with Egypt.

<sup>64</sup> Palaikastro (*BSA*, viii, 1901-02, pl. XVIII); G. Orsi, "Urne funebri Cretesi," *MonAnt.* i. 1890; Perrot et Chipiez, ii, fig. 296, 481; Knossos (Evans, *Prehistoric Tombs of Knossos*).

<sup>65</sup> F. Behn, "Pfahlhaus-Urnen," *PZ*, x, 1918, p. 77.

<sup>66</sup> Evans, *Prehistoric Tombs of Knossos*, p. 9.

<sup>67</sup> W. C. Hayes, *Royal Sarcophagi of the XVIII Dynasty*, 1935, pp. 63-67.

<sup>68</sup> Fürtwängler, *AG*, pl. IV, 3, 5.

<sup>69</sup> Evans, *PM*, i, fig. 493.

It is exceedingly hard to believe that the small warlike bands of Dorians, who began to invade Greece from the North about 1200 B.C. were solely responsible for turning the megaron into a temple and for giving to the pitched roof its universal pre-eminence in Hellenic religious culture. The fact that so many early Greek temples were built on Mycenaean sites, or associated with early Achaean heroes, shows the persistence of tradition. It is also much more likely that the shrine models from Perachora (fig. 48), dating from about 800 B.C.,<sup>70</sup> and the model from the Argive Heraion (fig. 50), represent incipient temples which developed out of a house type that had long been customary in the Argive valley. Here, again, these models associate the gable with the isolated structure, and they both have openings in their tympana which could be used for the ventilation of the interior. The little rectangular windows on the front of the Perachora model and the triangular windows on both examples suggest a gallery on the interior and prove that windows were not unknown on megaron structures. The opening in the gable for the escape of the smoke can also be seen on Etruscan hut-urns, such as the urn from Tarquina,<sup>71</sup> while an Etruscan bronze ossuary in the form of a house carefully reproduces the structure of a gabled roof.<sup>72</sup> These and other Etruscan house-models make one wonder why the Etruscans remained so consistently faithful to the sloping-roof tradition if the flat roof was the prevailing type in Asia Minor and the Aegean world around 1200 B.C. when the Etruscans were in league with the Mycenaean peoples and were perhaps settled in Asia Minor.

Finally, it is in Asia Minor that the well known monuments of the Lycians and Phrygians furnish the final and most conclusive evidence of the prevalence of the gabled house among those northern groups which dominated the Aegean at the close of the Mycenaean age. Among the allies of the Ahhiyava (Achaeans), who in the thirteenth century attacked the western frontier of the Hittite Empire, were the Lukka (Lycians).<sup>73</sup> Although the full force of this attack was deflected to Egypt, small groups of these raiders remained in Asia Minor. It is now thought by some scholars that these newcomers in Lycia were the distributors, if not the originators, of rock-cut architecture of Asia Minor.<sup>74</sup> In adopting this technique of stone carving, the Lycians reproduced as tombs their customary wooden houses. These house forms, such as the one depicted by the façade at Myra (fig. 49), must have represented an old and traditional type of building, because they show the natural transition from the bent roof to the gable, and are reproduced among the hieroglyphs on the Phaistos Tablet (fig. 44) as a distinctive house. By the Homeric period, sloping roofs of pliable materials were associated with Asia Minor by the reference in the *Iliad* to the timbered and thatched "tent" of Achilles,<sup>75</sup> and later, by the description in Herodotus of the rush-thatched houses of Sardis.<sup>76</sup> It is the Phrygians, however, who complete the picture and link the megaron once more to Thrace and the North. There seems to be no doubt that Greek tradition was correct in deriving the Phrygians from Thrace, where it has been seen that the gabled megaron went back to the Neolithic period, although there is no conclusive evidence to show when they began to move

<sup>70</sup> H. Payne, *Perachora i*, 1940, p. 37.

<sup>72</sup> Giglioli, *Ibid.*, pl. IV/4.

<sup>74</sup> Von der Osten, *Ibid.* iii, p. 457.

<sup>71</sup> G. Q. Giglioli, *L'Arte Etrusca*, pl. II/3.

<sup>73</sup> Von der Osten, *The Alishar Hüyük* iii, p. 449, n.

<sup>75</sup> *Iliad*, xxiv, 450.

<sup>76</sup> Herodotus v, 101.

into Asia Minor. They were established there by the ninth century, but the first groups may have started to move in as early as the twelfth century.<sup>77</sup>

The rock-carved façades and interiors of the monuments in Phrygia and Paphlagonia are clearly imitated from megaron-like structures with gabled roofs. While none of the carved monuments can be dated with any certainty, even the later examples presumably reproduce a type of house which the Phrygians introduced and in time came to commemorate as rock-cut tombs and shrines. At Arslan Kaşa (fig. 53) and on the tombs at Ayazeen<sup>78</sup> and Iskelib (fig. 51), the simplest, and perhaps the earliest, treatment of the gable shows only a wooden post, while the later examples, such as the Midas tomb and the Delikli-taş façades (fig. 52), have a cross piece to strengthen the gable, which is similar to the Lycian type. Even though many of these examples in date overlap the Hellenic period when Greeks were fully committed to the gable tradition, there is reasonable certainty that the Asia Minor reliefs and tombs reproduce earlier house forms of the megaron type and that the Greeks themselves associated their Phrygian owners with northern Greece and the period of Mycenaean culture.

Considering how little we can ever know about the roof-structure of early houses, which so frequently had to be rebuilt and were finally abandoned as little more than ruined ground plans, it is significant to find so much positive evidence for the persistence of the gabled megaron. Were there no other evidence, great importance should be attached to the fact that with one, or possibly two, exceptions, every house-urn and house-model found north of the island of Cyprus reproduces a sloping-roof dwelling. As the question now stands, either the author has not proved beyond reasonable doubt that the x, or sloping roof, should be inserted into the megaron postulate, or he should apologize for having expounded at such length a self-evident thesis.

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<sup>77</sup> Von der Osten, *Ibid.* iii, pp. 336, 459–461.

<sup>78</sup> *P. & C.* v, fig. 71.

## FORTY-THIRD GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

IN CONJUNCTION WITH THE AMERICAN PHILOLOGICAL ASSOCIATION

Hartford, Connecticut, December 29-31, 1941

### SUMMARIES OF PAPERS SUBMITTED BY THE AUTHORS

THE GREAT GODDESS OF NATURE IN FUNERAL ART OF MAGNA GRAECIA: ELISABETH JASTROW, University of North Carolina.

Two terracotta arulae, in Vassar College and in the Museum of the University of Pennsylvania, showing a woman's head in the center of tendrils or spirals (types of the fourth to the second centuries B.C.) were discussed, and an attempt was made to interpret this motive as a conception of the great goddess of life and death.

Beyond this, the question arises whether this conception, as shown on the terracotta arulae and on other monuments as well, begins to involve a meaning which would point to a change of religious ideas as expressed much later on Roman sarcophagi.

A NEW APPROACH TO THE SCULPTURE OF SOUTHERN ITALY AND SICILY IN THE FIFTH AND FOURTH CENTURIES B.C.: PHYLLIS L. WILLIAMS, New York City.

It is generally held that the coin types of the classical period are invariably independent numismatic creations which, with rare exceptions, are not to be interpreted as faithful reproductions of contemporary statues. On the contrary, however, certain coin types of Magna Graecia and Sicily can be demonstrated to afford precise replicas of lost contemporary statues. Among the major coin types of Herakleia, Croton, Metapontum, Selinus, Pandosia, and Leontini are representations of seated and standing figures of Herakles, of Apollo, and of local river gods which do not occur on the coinage of any other cities of the ancient world. Around these iconographically unique types, it is possible to group typologically and stylistically identical statues and statuettes which, like the coin types, are copies of lost statues which once stood in these cities. By this means, it can be shown that these coin types reproduce actual statues which were sufficiently famous to be repeated on the coinage of their cities and to be widely copied. As a further result of this approach, a considerable number of works may be attributed to ateliers of this region, including such well known statues as the bronze Herakles in Copenhagen, the so-called Ephebe from Pompeii, the Idolino, and the Castelvetro Youth.

ARCHAEOLOGICAL EVIDENCE FOR AN ETRUSCAN INVASION OF ITALY: EDITH HALL DOHAN, University Museum, University of Pennsylvania.

The Warrior's Tomb, Tarquinii, can now be dated to the seventh century and with it many other early tombs from Vetulonia, Tarquinii and Vulci. The remaining tombs which might be dated to the preceding century have but scanty equipment, with no sign of foreign influence. If, then, scholars persist in assuming an Etruscan invasion before 700 B.C., they must admit there is no archaeological evidence for the assumption. In the seventh century, on the contrary, trade with Greece and with the eastern ports of the Mediterranean was brisk, and Etruscan inscriptions make their appearance. Further evidence for seventh-century dating will be found in my recently published *Italic Tomb-Groups in the University Museum*, Philadelphia.

A PRAENESTINE CISTA IN THE VASSAR CLASSICAL MUSEUM: INEZ SCOTT RYBERG, Vassar College.

This paper will be published in a later issue of the JOURNAL.

THE DEVELOPMENT OF ROMAN RELIEF SCULPTURE IN THE THIRD CENTURY

A.D.: GEORGE M. A. HANFMANN, Harvard University.

The art of the third century A.D. represents the crucial period of transition from Roman Imperial art to late antique art. Three major phases may be distinguished. The stylistic changes which we observe in relief sculpture also occur in portraiture and painting. Sculpture in the provinces of the Roman Empire gradually emancipates itself from the influence of the capital during this period.

**THE TEMPLE OF DEMETER AT ELEUSIS: GEORGE E. MYLONAS, Washington University.**

That the temple of Demeter and the Telesterion were one and the same building was proved once more by Dr. Kourouniotes and John Travlos in their latest study on the problem (Δελτ. 1934-1935, pp. 54-114). That the first temple of Demeter was built in Mycenaean times is proved by the so-called Homeric Hymn to Demeter. The Late Helladic II and III building discovered below the floor of the Archaic Telesterion (cf. *AJA.* xxxvii, 1933, pp. 274-286) must be identified as that first temple of the Goddess. No relics were found in the building that would definitely prove its religious character, but its existence on a site already sacred in Geometric times, its architectural details and the complete accord of its location with that indicated by the Homeric Hymn, leave no doubt as to the correctness of the identification. The temple, according to the literary tradition, was constructed below the citadel and beyond its sheer walls on a rising hillock above the Kallichoron. The Helladic building was uncovered on a site exactly fitting the description. The temple had an altar in front of it; the Helladic building possesses a platform which could have served the purpose of an altar. The rites held in that temple and before that altar, were of a special nature; in these rites the "δηρσιμοσύνη ἱερῶν" and the "ὄργια δεμνά" formed the important part and not the sacrifice. The architectural details of the Helladic building, its peribolos wall, its court and its platform, seem to make it suitable for the celebration of such mystic rites. The action and exhibition scenes—τὰ δεικνύμενα, τὰ δρώμενα καὶ τὰ λεγόμενα—had to be staged where they could be seen by the crowd of the initiates. The platform of the Helladic building was excellently adapted for this purpose. The Helladic temple of Demeter at Eleusis has nothing in common with the Minoan monumental shrines. It differs radically from such shrines as those illustrated in the frescoes from the Palace of Knossos, in the gold plaque from the third shaft grave of Mycenae and on numerous impressions and gems; it also differs radically from the shrines which have been uncovered thus far at Knossos, at Haghia Triada and at Mallia. This radical difference justifies the rejection of the conclusion, popular until today, that the mysteries of Demeter were introduced to Eleusis from Crete, a conclusion based on the assumed similarity existing between the Telesteria and Minoan buildings.

**CONTRIBUTIONS TO ANATOLIAN TEMPLE ARCHITECTURE: BLUMA L. TRELL, Hunter College.**

A study of the temple coin types of the Roman province of Asia reveals that this invaluable source of evidence has in general been neglected by archaeologists. In a few instances, however, and only in recent years has the numismatic evidence been considered, but failure to see the numismatic tradition as a whole, rather than in part, has led to notably unsatisfactory results. At Samos, in the investigation of the so-called Kultbildtempel, only selected temple types of that city were studied, resulting in questionable identification and reconstruction.

In the present study the following contributions to the history of temple architecture are to be noted. The *columnae caelatae* of the Artemisium at Ephesus, mentioned by Pliny and studied by Butler, Dinsmoor, Lethaby, Ferguson and Murray, among others, are shown on the coins of that city. These confirm the arrangement of the sculptured drums on the façade of the building proposed by Dinsmoor and Butler. They also show that the pediment of the temple was decorated by sculpture and that the tympanum was pierced by three openings or windows. Similar windows known at the Hermogenes temple of Artemis Leukophryene at Magnesia a. M. appear on the coinage of that city. This type of construction, the purpose of which could have been to relieve the epistyle, is found as early as the geometric period and as late as the imperial. The so-called temple of Claudius, or Sераpeion (?), at Ephesus, had three windows in the pediment; so also, probably, the sanctuary originally dedicated to Domitian. Both buildings are represented with windows on the coins of Ephesus. The reliability of the numismatic evidence is also to be seen in connection with the openings in the tympana at Baalbek.

**NOTES ON BASSAI: FRANKLIN P. JOHNSON, University of Chicago.**

A fragment at the University of Chicago, found at Bassai, must be a corner of the sima, if it belongs to the temple. In its carving it is unlike the known pieces of the sima, so perhaps it is an akroterion of an altar. Pausanias says that the original temple-statue was taken to Megalopolis, doubtless at the foundation of that city. The later statue, of which some fragments remain, should not be much later than 369 B.C. Its sandal resembles in some points the sandal of the Hermes of Praxiteles. The frieze of the temple shows variations indicative of different hands, but the style is more uniform than in other



extensive Greek friezes. The pedimental sculptures have not been identified with even moderate plausibility, and there is no presumption that they are extant. A figure in the Louvre, thought to belong to a pedimental group, is markedly similar in style to the Bassai frieze; and its dimensions, as far as known, would not be impossible for the Bassai pediment.

**THE CHRONOLOGY OF THE NEOLITHIC PERIOD AND THE EARLY BRONZE AGE IN THE AEGEAN:** SAUL S. WEINBERG, Institute for Advanced Study.

Abundant new material from the Troad, especially from Troy, has necessitated a re-examination of the accepted schemes of prehistoric chronology for the Aegean region. The existence of well-developed Urfirnis Ware in Troy I pushes back the date of the beginning of the Early Helladic Period well within the period of Troy I, or near the beginning of the third millennium. Other comparative material shows that the beginning of the Early Bronze Age of Macedonia is about contemporary with the end of Troy I. Central Grecian material in Thessaly suggests a similar date for the beginning of the Thessaly III period, and this is confirmed by Trojan material in Thessaly. Thessaly II is shown to be contemporary with E.H. I and the end of the Neolithic in Central and Southern Greece. The earlier phases of the Neolithic culture of Greece can be divided into two main parts, falling in the latter part of the fourth millennium for the later one and going back to the middle or the first half of the millennium for the earliest occupation known so far in Greece.

**TWO UNKNOWN MINOAN STATUETTES:** DOROTHY KENT HILL, The Walters Art Gallery.

This paper will be published in a later issue of the JOURNAL.

**LATE MYCENAEAN POTTERY WITH PICTORIAL REPRESENTATIONS:** JOHN FRANKLIN DANIEL, University Museum, University of Pennsylvania.

Questions involving the style of Mycenaean pottery cannot be solved until the chronology of the ware is established. This latter may be determined by applying fixed dates furnished by L.H. III vases found in Egypt to the relative chronology illustrated by stratified sites in Greece and the Near East. On this evidence, the pottery of the L.H. III period may be assigned to the following sub-periods. Egyptian synchronisms and a few representative vases of the pictorial style are noted, with some remarks.

L.H. IIIA:1 (ca. 1400-1375 B.C.). Amenhotep III (1411-1375). *Swed. Cyp. Ex.* i, pl. CXX: 3-4; *BM Cat.* i:2, C368, 377, 391, 401. The L.H. III period begins during, or immediately before, this reign.

L.H. IIIA:2 (1375-1350). Tell El Amarna (1375-1350). *BM Cat.* C332, 340, 341, 342.

L.H. IIIA:3 (1350-ca. 1310). Seti I (1320-1300). *Swed. Cyp. Ex.* i, pl. CXX:1; CXXI:2.

L.H. IIIB:1 (ca. 1310-ca. 1280). Early Rameses II (1296-1230). *Swed. Cyp. Ex.* i, pl. CXX:2; *BM Cat.* i:2, C398. Introduction of the panel style; under its influence the neckless krater supplants the earlier type with tall neck and handles to the rim; many other vase shapes are altered.

L.H. IIIB:2 (ca. 1280-ca. 1240). Middle Rameses II (1296-1230). *BM Cat.* C. 402, 403, 408, 409. End of mass exportation of Mycenaean pottery to Egypt, Cyprus, and Syria.

L.H. IIIB:3 (ca. 1240-ca. 1200). Late Rameses II (1296-1230), Seti II (1214-1210). *BSA.* xxv, fig. 6b, 7e. *Eg.* 1895, pl. 11, 4-5. Construction of circuit wall and Lion Gate at Mycenae.

L.H. IIIC (ca. 1200-ca. 1100). *BSA.* xxv, pls. VII:b, IX:b, X:g. To the fall of Mycenae (1104 B.C.). No direct evidence for absolute chronology. I have not yet worked out the details of the relative chronology.

**WHERE WAS NESTOR'S PYLOS?:** ARTHUR S. COOLEY, Moravian College for Women.

**THE FOREIGN RELATIONS OF TROY IN THE BRONZE AGE:** CARL W. BLEGEN, University of Cincinnati.

This paper, excerpted from a like-named chapter in the forthcoming book of the University of Cincinnati Expedition about Troy, dealt briefly with some of the objects found at the site which were obviously imported from other places. The new evidence shows that throughout the Bronze Age, Troy maintained fairly close relations with the Aegean, and had a definitely western outlook. Some of this material, consisting chiefly of pottery, is useful for its bearing on chronology, and it is now possible to link the Trojan Periods at several points with the Aegean system. The paper will not be published separately.

**SCHLIEMANN'S FIRST VISIT TO AMERICA, 1850-1851:** SHIRLEY H. WEBER, American School of Classical Studies, Athens.

This will appear as a monograph and will be published in January or February, 1942 as *Gennadeion Monograph*, No. II, published by the American School of Classical Studies.

**THE DEMES OF ERETIA: WILLIAM WALLACE, University of Colorado.**

This paper was a résumé of a longer topographical and prosopographical study based largely on inscriptions which the author has had in hand for some time. A re-interpretation of *IG. xii, 9, 241* (which groups certain demes into districts) makes possible a more accurate account of Eretian topography.

**THE RECONSTRUCTION OF A GIZA CHAPEL: WILLIAM STEVENSON SMITH, Boston Museum of Fine Arts.**

The study of the fragmentary remains of the reliefs of Dynasty IV is particularly important because of the systematic destruction of the pyramid temples and early private chapels at Giza. The significance of this material has not been very clearly understood, owing to the rarity of well preserved monuments and to the fact that reliefs discovered during the course of the nineteenth century found their way into European museums with no record of their place of origin. Systematic excavation at Giza has now made it possible to draw the maximum amount of information from the numerous fragments of relief found there. Sometimes a reconstruction of a considerable wall surface could be made from what at first appeared to be hopelessly shattered parts. The familiarity thus gained with the style of the period, combined with a knowledge of the topography of the cemetery and the names of the owners of the Giza tombs also enables us to identify some of the sculpture long exhibited in European collections. The application of this sort of detective work to other sites and to a wider range of Old Kingdom art has resulted in the reconstruction of portions of several Saqqarah chapels and the Medum wall painting from which came the famous panel of the geese in Cairo.

Perhaps the most successful results were obtained with the Giza chapel of Nofer. In this case the whole chapel could be reconstructed by identifying its widely scattered parts. The tomb had been badly plundered long before Dr. Reisner excavated it in 1905. The northern entrance jamb and fitting fragments of the south wall were found in the débris and brought to Boston. Large figures of the owner and his wife were still in place on the east and west walls, while the lower part of the false-door and the uninscribed north wall had not been disturbed. It was then recognized that a beautiful relief in the Louvre formed the southern entrance jamb of the chapel. Two other large pieces from the east and west walls were identified in Copenhagen, as well as the tablet of the false-door in the Baracco Collection in Rome. Drawings could then be made of a reconstruction which formed a nearly complete example of one of the simple offering rooms of the reign of Chephren which adds valuable material for the study of the reliefs of Dynasty IV.

**ROMANO-COPTIC EGYPT AND THE CULTURE OF MEROË: DOWS DUNHAM, Museum of Fine Arts.**

This paper calls attention to the excavations carried out by the Boston Museum's Egyptian Expedition in the Anglo-Egyptian Sudan from 1916 to 1923. Three major cemeteries at El Kurruw, Nuri, and Meroë have yielded a comprehensive archaeological picture of Ethiopian-Meroitic culture from about 900 B.C. to A.D. 350, since these three sites contain in unbroken series the tombs of the royal families of Ethiopia, including those of the kings of the Egyptian twenty-fifth dynasty. Emphasis is placed upon the value of this material, especially that from the tombs of late Meroitic date, in its relation to late Roman and early Christian cultures in Egypt and Lower Nubia, where artefacts of Meroitic origin are found associated with those of Romano-Nubian and Coptic-Byzantine character. It is felt that the definite dating of the Meroitic material made possible by the results of these excavations may well prove of value in fixing the relative chronology of associated finds in Lower Nubia and perhaps even further afield. The publication of the sites mentioned is now in preparation at the Museum in Boston.

**NOTES ON THE DAEDALIC STYLE: FREDERICK R. GRACE, Harvard University.**

The "Daedalic" style of seventh-century sculpture in Greece cannot be considered as strictly "Dorian," nor as a manifestation of a purely insular development of the Peloponnesos. The distribution of remains of this art over a wide area indicates that it was in a sense a national style. In the effort to emphasize the contrast between Daedalic and Assyrian sculpture, the latter has been much misrepresented. Some of the peculiar forms of late Assyrian sculpture, forms which show clear parallels with early Greece, may be explained in Assyria by the positions occupied in the temples by the statues themselves. From the attested importation of Assyrian figurines it is clear that some of this material was familiar to the early Greek sculptors.

EARLY ATTIC TOMBS: GISELA M. A. RICHTER, Metropolitan Museum, New York.

THE POTTER RELIEF FROM THE AKROPOLIS, A POSSIBLE WORK OF ENDOIOS:

ANTON E. RAUBITSCHKE, The Institute for Advanced Study.

To the seven fragments of the relief, Acropolis Museum, no. 1332 (W.-H. Schuchhardt in H. Schrader, *Die archaischen Marmorbildwerke der Akropolis*, pp. 301 f., no. 422), two new fragments can be added: E.M. 6520 (H. G. Lolling, *Κατάλογος*, no. 359) and Agora I 4571 (still unpublished). These two fragments complete the crowning pediment of the relief and contain the end of the dedicatory inscription which can now safely be restored to [---]αῖος : ἀνέθεκεν [: τὰ θεναῖαι] | δεκάτεν. The date of the monument has been determined by the threefold evidence of the style of the relief, of the profile of the cylix in the hand of the potter, and of the letter forms of the inscription. Recent discussions both of the style of the relief (Schuchhardt) and of the profile of the cylix (H. Bloesch, *Formen attischer Schalen*, p. 144) suggest for the monument a date near the end of the sixth century B.C. But the letter forms of the inscription do not seem to agree with this early date; the letters on the old fragments have been dated in the fifties of the fifth century (compare *AJA.* xliii, 1939, p. 711), and the inscription on one of the newly added fragments (E.M. 6520) has even been termed archaistic by its first editor. A comparison, however, of the inscription on the Potter relief (and especially of the part engraved on the pediment) with that on one of the tomb monuments made and signed by Endoios (*IG.*, i<sup>2</sup>, 978) reveals considerable similarity which definitely justifies the earlier date for the Potter relief; for Endoios' activity hardly extended beyond the beginning of the fifth century (compare *JOAI.* xxxi, 1938, Beiblatt, cols. 63 ff.; A. Rumpf, *La Critica d'Arte* xiv, 1938-xvi, pp. 41 ff.). But the similarity between the Endoios signature and the inscription on the Potter relief is great enough to suggest the assignment of the relief to the sculptor Endoios; this artist, incidentally, seems to have been famous for his representations of seated figures. The attribution of the Potter relief to Endoios is greatly supported by the two fragments of the artist's signature which are still preserved on the right margin of the relief. They were accurately copied by Lolling (no. 281) and correctly interpreted by G. Dickins (*Catalogue*, p. 272), but they have so far played no part in the discussion of the monument and its artist. The scanty remains of the signature contain its beginning and its end, but it appears that this signature, as well as Endoios' signature on another Athenian monument (*IG.*, i<sup>2</sup>, 983; *JOAI.* xxxi, 1938, Beiblatt, cols. 62 ff.), was intentionally damaged and made illegible. Yet a close examination reveals that the following restoration is epigraphically possible: Ἐν[δοῖος ἐποίησεν].

THE PNYX IN THE FOURTH CENTURY: HOMER A. THOMPSON, University of Toronto.

Excavations conducted under the joint auspices of the Department of Antiquities of the Greek Government and the American School of Classical Studies at various times between 1930 and 1938 have brought to light the foundations of two large colonnades on top of the Pnyx Hill and separated from the Assembly Place by level terraces. From their position it is obvious that the buildings were closely related to the Assembly Place and were probably intended primarily as shelters for the citizens in case of rain. They were begun late in the third quarter of the fourth century B.C. To the same time may be assigned an ambitious beginning on the remodelling of the Assembly Place. The entire building program was abandoned under the stress of re-armament and the foundations of the colonnades were overlaid by fortification walls. The project was an interesting anticipation of the orderly grouping of large buildings more commonly practised in the Hellenistic Period.

THE TOWER OF THE WINDS AND THE ROMAN MARKET-PLACE: HENRY S. ROBINSON, University of Oklahoma.

This paper presents some of the results of a preliminary study, made during the years 1938 to 1940, of the Tower of the Winds and of the Roman Market-place area.

An examination of cuttings in the floor of the Horologion of Andronicus (Tower of the Winds) reveals that in antiquity the northeast door of this building was kept permanently open and the north-west door kept permanently closed: the interior clock and weather-vane were thus accessible to the populace of Athens at all hours of the day and night. The appropriate site for this structure was near the scene of large public gatherings; such gatherings occurred in the adjacent Roman Market-place, part of which should, logically, antedate the construction of the Tower.

A study of the architectural and epigraphical remains of the Roman Market-place area confirms this supposition and provides the following chronology:

In late Hellenistic or early Roman times a large rectangular market-place was constructed here of

poros stone and in the Doric order. In the second half of the first century before Christ a marble propylon of the Doric order, the Gate of Athena Archegetis, was added to the west wall of the market building, and at about the same time the Horologion of Andronicus was constructed to the east. In the first half of the second century after Christ, possibly in Hadrianic times, the market was provided with interior colonnades and an eastern propylon of Hymettus marble, and a building with arched facade (hitherto incorrectly identified as the "Agoranomion") was set up south of the Horologion. During the reign of Antoninus Pius the Agoranomion, or Office of the Market Police, was erected somewhere in the neighborhood of these other constructions: none of the exposed foundation walls in the area can as yet be definitely associated with the Agoranomion.

It is further suggested—in partial refutation and in partial confirmation of views already expressed by Bagnani—that the "Gymnasium of Hadrian" mentioned by Pausanias in his first book (i, 18, 9) may be identical with the Roman Agora proper, the symmetrical restoration of which provides an interior colonnade of one hundred columns.

TEIRESIAS AND ARISTOTLE: KARL LEHMANN HARTLEBEN, New York University.

THE SYLLABARY OF THE LINEAR SCRIPT B AT PYLOS AND KNOSSOS: EMMETT L. BENNETT, JR., Cincinnati, Ohio.

For a correct transcription and for any attempted transliteration of the Minoan documents it is essential to have a complete and accurate list of the characters with their principal variations in form. This paper, which is based chiefly on the recently found inscriptions from Pylos, is an attempt to supply such a list. Through comparison of the forms of characters as they occur on tablets written by different hands, and through the evidence provided by their use in words, some characters, formerly confused, have been differentiated and some variant forms of single characters, formerly considered separate, have been united, while new characters found for the first time at Pylos have been added to the list. The syllabary has been rearranged in a new order based on form. The total number of characters used in word-groups in the inscriptions found at Pylos and Knossos is now determined to be ninety-four, seventy-two of which are common to both regions, while fifteen are found only at Knossos, and seven only at Pylos. The whole syllabary, with the principal variations of each character, is illustrated in accompanying tables.

SOME COMMENTS ON A MINOAN INSCRIPTION (LINEAR CLASS B): A. E. KOBER.

In spite of the surprisingly large amount of work that has been done on the Minoan scripts, it is still impossible to analyze any given inscription with any degree of certainty. Not only have the inscriptions as a whole been inadequately published, but the work done in the field both by those who have had access to the unpublished inscriptions and by those who dealt only with material that was available in books and periodicals leaves much to be desired. There are no complete analyses of any one type of inscription, no word lists, few attempts to analyze the signs on the basis of their use in words. Even the sign lists published by Evans and Sundwall omit signs that appear in published inscriptions, and include signs that do not appear in such inscriptions without stating where they do appear.

The problems that confront a person who tries to work with the scripts, as a result of these lacks, can best be illustrated by taking a specific inscription, and attempting to analyze it. I am using one published in a photograph by Sir Arthur Evans in *BSA.* 6, 1899–1900, opposite page 18, lower right-hand corner, and in a transcription by Johannes Sundwall in an article "Minoische Rechnungsurkunden," page 3, group C No. 2 (in *Societas Scientiarum Fennica, Commentationes Humanarum Litterarum* iv, 4, 1932).

Although it belongs to a type of inscription for which we have numerous examples, it is still not possible to identify all the signs with certainty, or to explain the function of the words and ideograms that are used.

Since this is true, in a greater or lesser degree, of all the inscriptions, it is nonsense to talk of breaking any of the scripts until archaeologists publish more adequately and linguists do more sound basic work and indulge in fewer guesses.

THE EARLY ALPHABET IN ATTICA: RODNEY S. YOUNG, Staff of Agora Excavations.

The sanctuary on Mount Hymettos is now proved to be the altar of Zeus Ombrios mentioned by Pausanias, who speaks also of a statue of Zeus Hymettios. Several inscribed fragments bear the name of Zeus; the god is called Zeus Ἀναξ and Zeus Σήμιος. One hundred and seventy-seven new inscribed fragments were found; of these one is on a late Geometric sherd, while the rest are on pots of



the seventh and early sixth centuries. Since the great majority of the sherds found on Hymettos (more than 85 baskets were filled) was Geometric, the absence of inscriptions on Geometric sherds is perhaps significant. Moreover, the way in which certain letters are used on the seventh-century sherds suggests that the alphabet had been but recently introduced and that people were using a still unfamiliar medium of expression. Thus in two cases we find alpha lying almost on its side; in an abecedarium a digamma seems to have been included; the closed and open forms  $\Xi$  and  $\text{H}$  are both used, sometimes as a long vowel, sometimes as the aspirate; for lambda, both the Attic and the Ionic forms are used; the Ionic four-barred sigma appears early. In the early inscription on an oinochoe from the Dipylon broken-barred iotas are used. The broken iota must have got to Attica from Crete, Thera, Melos, or Corinth; but here it is used with the normal form for sigma, rather than the san form. The eta used as a long vowel probably came from Ionia; the Attic form for lambda perhaps from Chalkis. It would seem, then, that in the seventh century the alphabet in Attica was in a state of flux; the normal Attic alphabet was not yet established, and each individual wrote as he happened to learn his letters, whether through Corinth, the Euboean cities, or Ionia.

A FIFTH-CENTURY GREEK STATUE FROM PERSEPOLIS: CLETA OLMSTEAD ROBBINS, Bryn Mawr College.

This paper will be published in a later issue of the JOURNAL.

EXCAVATIONS IN AMERICAN MUSEUMS: MARGARETE BIEBER, Columbia University.

Investigations of Greek and Roman sculpture in the galleries and the storerooms of different museums, particularly the Metropolitan Museum of Art in New York, have induced the Department of Greek and Roman Art in the Museum to detach the modern restoration from the marble statues formerly in the Giustiniani Collection in Rome. The result is that many of them have been for the first time recognized for their value, and several have been or will be exhibited to the public. The most important ones belong to the Hellenistic age, such as the portraits of a Diadoch and an Alexandrine princess, a seated Muse, and a late Hellenistic draped woman, an original, disfigured until now, by a late Roman copy of an Apollo head. The most amusing example outside New York is a ram in Buffalo, which had been restored with a palm trunk under his belly, but who really carried an Odysseus from the cave of Polyphemus.

HERO AND HORSE AT CORINTH: OSCAR BRONEER, Institute for Advanced Study.

This is part of a more extensive study on Hero cults which will be published in full in one of the early numbers of *Hesperia*.

THE FRIEZE OF THE DIOGENES-PORTICUS AT APHRODISIAS: OTTO BRENDL, Indiana University.

ANCIENT INK-WELLS: DOREEN CANADAY SPITZER, New Haven, Conn.

Ink-wells or ink-pots were in use from Egyptian times to Byzantine and even into modern times with almost no fundamental differences, but with certain changes in style and fabric which reflect the general development of the pottery and of the decorative elements particular to provenience and period. Ink-wells have been made of wood, faience, bronze, silver, glass (?), and terracotta. Those of clay are usually glazed; they may be plain or decorated with moulded reliefs. One, at least, is known to be signed by the maker; several are inscribed with the owner's graffito and several with dedicatory phrases. The Roman terracotta ink-wells, which are the most numerous, were made partly by wheel and partly in a mould, as a side product of the potter's or lamp manufacturer's industry.

LAMPS OF THE ROMAN PERIOD FROM UNIVERSITY OF MICHIGAN EXCAVATIONS IN EGYPT: LOUISE A. SHIER, University of Michigan.

A study of the types of lamps of the Roman period, found during excavations by the University of Michigan at Karanis, an Egypto-Roman town in the province of Fayoum, Upper Egypt. The development of the lamps reflects general conditions in the country. The earlier lamps copy Greek and Roman types. Egyptian types developed and were used contemporaneously with the former, but gradually displaced them. As economic conditions in Egypt grew worse, the lamps became cruder and clumsier and their decoration is a study in deterioration. This is well illustrated in the frog lamps. Lamps of the late third and early fourth century levels began to have Christian elements in their decoration.

Lamps found at Dimé, near Karanis, and at Terenouthis in the Delta by the University of Michigan Excavations parallel the finds at Karanis.



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## NECROLOGY

**Johannes Boehlau.**—JOHANNES BOEHLAU, born in 1861, died in 1941 in Göttingen, shortly before his 80th birthday, after a long and serious illness. He received his Ph.D. in Rostock in 1884, with a dissertation written in Latin on Greek dress, *Quaestiones de re vestitaria Graecorum*.

Boehlau's most important book is entitled: *Aus ionischen und italischen Nekropolen* (1898). In this he publishes the finds of his excavations at Samos, which are now mainly in the museum of Kassel, where Boehlau was director until his retirement. Starting from them he investigated Submycenaean art. He has helped to clarify the relationship of the geometric and orientalizing styles to Mycenaean art, and he was the first to distinguish the main characteristics of Ionian art and to separate the different orientalizing styles from one another. Before this book appeared, Boehlau had already written important papers on vases: on Early Attic vases from Anatolos and from Hymettos (*JdI.* ii, 1887, pp. 33–66), on a Melian amphora (*ib.*, pp. 211–215, pl. 9), and on Boeotian vases (*ib.* iii, 1888, pp. 325–364). Everywhere he made clear distinctions between groups which till then had been confused with one another, and he laid the foundations for more recent investigations. He himself published very little in his later years. After a paper on a group of tombs in Pitigliano, the finds of which are in the Berlin Museum (*JdI.* xv, 1900, pp. 155–195) he published only an extensive paper on the spiral in *PZ.* xix, 1918, pp. 54–98.

In 1902 Boehlau and his Swedish friend, Lenart Kjellberg, began excavations in Larissa on the Hermos, in order to solve problems concerned with Ionic art. They found fragments of important colored terracotta friezes of the sixth century. These were brought to Istanbul, where reconstructed drawings were made by Gilliéron in 1903.

After many vicissitudes and the loss by death of many members of the excavation staff, Åke Åkerström, who had studied the finds in Istanbul in 1935, continued and finished the work. He has published Vol. II of *Larissa on the Hermos*, the results of the excavations of 1902–1904, the architectural terracottas. Boehlau had no part in this volume except that of collaborator. He has a part in the other two volumes which have recently appeared in Germany (1940) and for which Boehlau and Schefold are named as the editors: Vol. I, the buildings (1940) and Vol. III, the smaller finds.

M. B.

**Johannes Kirchner** spent his boyhood in St. Petersburg, where his father was a high court dignitary. At fifteen he entered Schulpforte, the German Groton; his universities were Bonn and Halle; among his teachers were Usener and Dittenberger. Thereafter, he taught in Berlin. Uncommon "advantages" had given him uncommon qualities. In his scholarly career he never deviated from one line of study. *Prosopographia Attica*, containing all the data on all the then known Athenian citizens, was compiled mostly in his evenings. The famous names took as much as a month each to complete; the whole work consumed sixteen years. Soon after it was published, he was invited to prepare for the *Editio Minor* the inscriptions of the period covered by Volume II of the *Corpus* of Greek inscriptions. He consented, on condition that Volume III should be combined with it, so as to unite in one continuous series not just the Athenian inscriptions of 403/2–30/29 B.C., but also all those of the period of the Roman Empire. The plan was rational, but the task involved the study of all the texts which Koehler and Dittenberger had edited, together with those which had come to light in the interval, in all some ten thousand items. He began this work at the age of forty-seven and lived to complete the preface and last proofs of the last fascicule a few

days before his death on June 27, 1940, at the age of eighty-one. Without slackening his pace, or impairing the quality of his work, or deviating into new fields, he had found time for a series of articles; for numerous contributions about Athenians in the *RE.*; for editing a series of texts in Volume I of the *Editio Minor* of *Inscriptiones Graecae* and a large Athenian section of the third edition of Dittenberger's *Sylloge*; for collecting the photographs and writing the commentary of his *Imagines Inscriptionum Atticarum*, not to mention several epigraphical journeys to Greece (for the last see *AJP.* lix, 1938, 360) and, at the age of eighty, to Paris and London.

When a young colleague complained of not being able to do as much at 33 as he could at 76, Kirchner remarked, "Herr ———, you will *acquire stamina*." For those who did not finish what they had begun he had mild scorn: "Er ist einer Cunctator," he would say of such a scholar. In his own work he eschewed idle theorizing or any other form of waywardness; his ideal was terse sense, to be as he said *sehr nett*—and he probably never wrote a single really weak sentence. His enthusiasm never having been mis-spent, it remained lively, and though he had edited thousands of texts he was always eager at the cry of "Kleine Buchstaben!" when a new inscription was found.

He always finished what he had to do, and thus his mind was free when it was done. For him meriment was no escape from work, nor work from life: he was never escaping. Since he was truly happy, his presence made others happy. Though he exacted the utmost from himself, toward others he was all kindness. Boon companionship and good living came naturally to him. They restored the balance against the long hours of exacting work, so that toil seemed only to strengthen him, and the passing years left him still young, interested, vigorous, and kindly. To friendship he brought all, and more than all, that these qualities would suggest.

S. D.

Vladimir J. Fewkes died after a long, obscure, and painful illness in Philadelphia on December 12, 1941, at the early age of forty. Born in Nymburk, Bohemia, March 23, 1901, he came to the United States in 1920, after having served through the First World War. Entering the University of Pennsylvania, he received the degrees of S.B. in 1926, A.M. in 1928, and Ph.D. in anthropology in 1930. From 1929 till 1931 he was a research

associate of the University Museum in Philadelphia, most of the time in charge of an expedition sponsored by that Museum and the Peabody Museum of Harvard University. In 1931 he was appointed State Archaeologist of New Jersey, and an Associate Professor in the American School of Prehistoric Research. In 1932 he joined the faculty of Harvard University, where he remained till 1937, spending much time in the field in Europe. In 1938 he returned to the University Museum in Philadelphia, where he remained the rest of his life. A member of many learned Societies, and a man of uncompromising intellectual integrity, he was one of the most valued contributors to this Department of the JOURNAL. His widow survives.

S. B. L.

## GENERAL AND MISCELLANEOUS

**Preservation of Panel Pictures.**—In *The Journal of the Walters Art Gallery* iv, 1941, pp. 123–127, DAVID ROSEN discusses methods of preservation used on panel pictures. The methods most commonly employed, such as cradling or planing down of the panel, result usually in damage to the picture. He concludes that if the painted surface is in good condition there should be no attempt made to straighten a warped panel. Such a condition can be concealed by a specially constructed frame. If, however, the picture is in danger, the panel can be straightened by "the controlled use of humidity." It is then treated with wax, and the resultant wax-permeated panel remains "unaffected by subsequent variations in relative humidity."

**Notes on Excavations.**—Selection from Éire, England, Northern Ireland, Scotland, and Wales, during 1938. Reprinted from *Proceedings of the Prehistoric Society* 1938 (ii).

### ÉIRE

**Quaternary.**—Lough Gur, Limerick: Cave site with quaternary fauna.

**Neolithic.**—Lough Gur, Limerick: Megalithic tomb, long cist type. Neolithic to Late Bronze Age.

Drimnagh, Dublin: Large round composite tumulus ("Grand Parlour"). Late Neolithic to late Middle Bronze Age.

Ballynamona, Waterford: Short Megalithic gallery tomb of hybrid type, apparently unique in S. Ireland.

**Bronze Age.**—Calary, Wicklow: Circular cist with inverted cinerary urn.

Aghfarrell, Dublin: In sandpit, rectangular cist with inhumation and cremation.

Kealkill, Cork: Small stone circle with "ring cairn."

*Iron Age*.—Turoe, Galway: Ringfort, source of La Tène Stone. Post holes, etc., indicate occupation area. Finds include iron fibula. Cf. Vogelkopf fibulae of S. Germany. Probably fourth century B.C.

#### ENGLAND

*Palaeolithic*.—East Burnham, Bucks.: Clactonian, Middle Acheulian, Levalloisian artefacts, and artefacts formed upon implements of early Levallois type.

*Mesolithic*.—Farnham, Surrey: At the sewage farm site, a microlithic industry beneath flints and sherds indicative of Neolithic B visits; at the latter level Belgic pottery also.

*Neolithic*.—Julliberrie's Grave, Chilham, Kent: In turf core of barrow a flint axe of Scandinavian type confirms Western Baltic connections of Kentish megaliths.

Church Dale, Derbyshire: First record of Peterborough pottery in association with a cist burial.

Grimes Graves, Norfolk: Excavation of Pit 15 of flint mines reveals galleries and chipping floors. Neolithic flint workers employed "Clactonian," "Mousterian," "Levalloisian" types of technique.

*Bronze Age*.—Crichel Downs, near Blandford, Dorset: One of eighteen small barrows contained an inhumation associated with a beaker of type B<sub>i</sub>; skull trepanned—the first dated example of trepanning in Britain.

Cop Barrow, Bladlow, Bucks: In imported clay core of barrow was found an Acheulian hand-axe.

*Early Iron Age*.—Meare Lake Village, Somerset: Two new dwelling-mounds contained amber, jet, and glass beads, toyglas (one a zoömorph), etc.

Colchester (Camulodunum), Essex: a number of dwelling sites and pits of the time of the pre-Roman Belgic King Cunobelin. Evidence found in connection with his mint and the possible site of his dwelling.

Numerous forts and camps in process of excavation show varying types of construction: in Hampshire, Kent, Cheshire, Berkshire, Sussex, Devon.

#### NORTHERN IRELAND

*Neolithic*.—Squire's Hill, near Belfast: Several

thousand flint artefacts, polished blue-stone axes, burnished pots, sherds.

*Megalithic*.—Toberagnee Townland, County Antrim: Earthwork enclosing circular cairn erected on cremation floor, with small chamber. Cache in secondary deposits included inlaid glass bead, lignite ring, amber bead. Floor yielded flints, polished stone tools, new varieties of "Neolithic" pottery, pendants of green stone.

Aghanaglack, County Fermanagh: Double horned cairn, i.e., having two separate galleries with façades.

*Early Iron Age*.—Port Braddan, County Antrim: Cave in raised beach; hearths yielded bone pins and needles, charred grain, sherds, crude stone figure representing male head and shoulders.

#### SCOTLAND

*Mesolithic*.—Shewalton, Ayrshire: In bed of river Irvine, a bilaterally barbed point of red-deer antler, with rhombic section and rounded extremity provided with pronounced midrib having groove on each side. It differs from other bone and antler Scottish points of Azilian facies in being polished.

*Megalithic*.—Rovsay, Orkney: Ruins of four dwellings corresponding in plan and furniture (curbed central hearths, tanks, bed-recesses, flag-covered drains, etc.) to the huts of Skara Brae.

#### WALES

*Megalithic*.—Tŷ-isaf, Talgarth, Brecknockshire: Long cairn, wedge-shaped, double revetment walls at wide end, forming horns and ending in a false portal, behind which are symmetrically placed lateral chambers entered from side of cairn. Narrow (south) end of cairn occupied by a rotunda encircling a large chamber of gallery-with-transept type. Rotunda enclosed by two walls built so as to give the effect of a double spiral. No parallel known to this arrangement.

#### EGYPT

*Prehistoric Fragment*.—WILLIAM C. HAYES, in *B.M.A.* xxxiv, 1939, pp. 48-49 (fig.) publishes a fragment of a schist palette, of Egyptian prehistoric work, given anonymously to the Metropolitan Museum in 1920. It is decorated with a relief of a fallen warrior transfixed by a weapon, who from his dress and facial type is a Lower Egyptian, while the weapon is certainly of Upper Egyptian make. It can be dated stylistically in the years immediately preceding the first his-

toric dynasty, i.e., somewhat anterior to 3200 B.C.

**Eighteenth Dynasty Ivory.**—The Metropolitan Museum has recently acquired a fine ivory carving of a galloping hound, for its Egyptian collection. AMBROSE LANSING, in *BMMA*. xxxvi, 1941, pp. 10–12 (3 figs.) publishes this little figurine. By means of a rod attached to the hinged lower jaw, and extending from it under the belly, the jaw can be moved up and down to suggest baying. Its accuracy of design makes it possible to identify this hound as the prototype of the modern greyhound—the nearest species to it in existence is the Saluki, individuals of which have only recently been imported to this country.

**Statuette of Lotus-God.**—WILLIAM C. HAYES, in *BMMA*. xxxiii, 1938, pp. 182–184 (2 figs.) publishes an Egyptian bronze statuette in the Metropolitan Museum, representing the god Nefer-tēm, which he considers the finest of its type in existence. The worship of this god goes back to the earliest times of Egyptian prehistory, and is associated with the blue lotus (*nymphaea caerulea*) that grows in the swamp lands of the Delta. He is also associated with the ancient solar cult of Heliopolis, inasmuch as the lotus flower opens its petals under the sun's rays. He was especially worshipped at Memphis as the son of the god Ptah and the goddess Sakhmet. Representations of him, however, do not appear until the Nineteenth Dynasty, when numerous statuettes of bronze or faience begin to appear, most of which come from either Memphis or Bubastis. After the Twenty-Sixth Dynasty they begin to dwindle in numbers. This statuette stands out because of the elegance of its proportions and its delicacy of modelling. It is cast solid, except for the rectangular base to which it is soldered, which is hollow. The petals of the lotus-flower with which the head is crowned were inlaid with blue faience, while silver inlay was employed for the whites of the eyes and the braid lines on the beard. On the base is a dedicatory inscription. It was found in 1909 at Memphis, and a date in the Twenty-Fifth Dynasty (712–663 B.C.) is tentatively suggested.

**Egyptian Cosmetic Spoons.**—A small head of a girl in wood had long been a puzzle to the Egyptian Department of the Metropolitan Museum. It is now identified as the head of a swimming girl, from a cosmetic spoon—this is made certain by a complete example with a similar head, from the collection of the New-York Historical Society, now on loan in the Brooklyn Museum. These

spoons were made to hold cosmetics or toiletries, and the handles were in the form of swimming girls. This example dates about the time of Akhen-Aten (1360 B.C.). Another similar head, in alabaster, was found by the Museum's expedition on the site of the palace of Amen-hotpe III at Thebes (about 1400 B.C.) and has also been identified as coming from one of these spoons. Finally the Metropolitan Museum was able to acquire a complete example in alabaster, in the form of a swimming girl, towed by a gazelle. The back of the gazelle forms the cover of the spoon. This object dates also about 1400 B.C. (DOROTHY W. PHILLIPS, in *BMMA*. xxxvi, 1941, pp. 173–175; 3 figs.).

**Egyptian Installations in Boston.**—DOWS DUNHAM, in *BMFA*. xxxix, 1941, pp. 7–10 (4 figs.) comments briefly on some recent additions to the Egyptian Galleries in the Museum of Fine Arts in Boston. First is a modern reproduction of a bed from Kerma—a copy of one of several found in the Museum's excavations from 1913 to 1916. These beds were used for burials, rather than coffins. None of the originals was suitable for exhibition, but afforded information for making a replica. The original beds are dated about 1750 B.C., and one of them, as a matter of fact, is shown alongside the replica to give the evidence for the reconstruction. The replica is made exactly as the original was, no glue being employed, and each member being bonded to the whole with mortise and tenon. The legs and frames of the originals were made of acacia, but as this wood was not available for the restoration, rosewood was substituted. The second object is a model procession of wooden figures, found at El Bersheh in 1915. It had been exhibited elsewhere in the Museum, but has now been placed on a separate pedestal owing to its perfection of modelling. It belongs to the Middle Kingdom period.

**Head of Ptolemaic Queen.**—In *BMMA*. xxxiii, 1938, p. 240 and cover illustration, AMBROSE LANSING records the gift to the Metropolitan Museum by Mrs. John D. Rockefeller of a white marble head of a queen, belonging in the Ptolemaic period, and about one-third life size. It is of conventionalized style, and shows strong influence of the traditional art of the Saite period, with no attempt at portraiture.

**Mummy of Nes-min.**—The Museum of the Rhode Island School of Design in Providence has acquired a very interesting Egyptian mummy in its painted coffin, which had formerly been in a private collection in England, and belongs in the



early Ptolemaic period, about 300 B.C. MIRIAM A. BANKS, in *Bull. R. I. Sch. Des.* xxvii, 1939, no. 1, pp. 21-35 (11 figs.) publishes it, in two separate parts: the first (pp. 21-30) dealing with the mummy itself, the second (pp. 31-35) with the coffin. After a long description of the evolution and development of the technique of mummification, she takes up the actual specimen. When found, it was equipped with a small scarab (now lost) and a gilded cartonnage mask, which has been in the British Museum since 1885. From the hieroglyphs on the mummy-case we know the name and rank of the deceased, Nes-min, a priest of the god Min, and a prophet of the god Khonsu. He was of high rank, of a priestly family, and lived to a good age. When he died, the mummy in its close-fitting case was laid in a tomb, in which votive offerings were deposited. The writer publishes examples of objects found in such tombs, including alabaster jars in which the viscera of the deceased, removed before embalming, were deposited, amulets and other votive offerings. Faience figures, known as ushabtis, were inserted in tombs to act as servants for the deceased, and objects of bronze or ivory for his personal use in the other world.

The second part of the article (pp. 31-35) deals with the coffin. A translation of the inscriptions upon its surface was made by the late Sir E. A. Wallis Budge of the British Museum, which the writer has used. A detailed and careful description of the decorations and a revision of Budge's translation, by DOWS DUNHAM of the Museum of Fine Arts in Boston is given, showing the importance of the deceased.

In *ibid.*, pp. 36-37, DR. MURRAY S. DANFORTH describes the results of X-ray examinations of the mummy, including a special medical report by two physicians, who examined the photographs from a Roentgenological viewpoint. They show the deceased to have died in old age, but the report does not hazard a guess as to the actual cause of death.

**Ptolemaic Silver Bowl.**—In *BMMA.* xxxiii, 1938, pp. 199-200, AMBROSE LANSING describes the gold and silver ware of Egypt with particular reference to objects in the Metropolitan Museum. While the work of the craftsmen of dynastic Egypt is not so well known, that of the Ptolemaic period is somewhat better represented in our museums. From a hoard found in the Delta in 1917, the Museum acquired five vessels which are here published. From a similar hoard has recently

come to light a number of others, from which the Museum has acquired a silver bottle with fluted decoration. Thanks to an inscription on a strip of silver gilt found with it, it can surely be dated in the beginning of the first century B.C.

**The Adonia at Alexandria.**—A. S. F. GOW in *JHS.* lx, 1940, p. 95, writes a note to the effect that on the authority of Heichelheim he had earlier stated (*JHS.* lviii, 1938, p. 183) that an unpublished papyrus in the Rylands collection connected Adonis with the late Ptolemaic month Gorpiaios, and that he accordingly placed the festival on one of the first days of September. Heichelheim now believes that there is no mention of Adonis in the Rylands papyrus, but other evidence enables Gow to accept a date of late summer or early autumn for the *Adonia*.

### MESOPOTAMIA

**Creation Tablets.**—The New York *Herald Tribune* for November 23, 1941, reports from Philadelphia the discovery by SAMUEL N. KRAMER of a group of sixteen Sumerian tablets in the collection of the University Museum, giving a new version of the creation of the universe. These tablets date from 2000 B.C., and are at least a thousand years earlier than any other known story of the creation.

### PALESTINE AND TRANSJORDANIA

**Rainfall in Palestine.**—In *PEQ.* (July, 1941), C. F. ARDEN-CLOSE has an article on the Rainfall of Palestine. According to his statistics, no rain is usually recorded for June, July, August, and September. He quotes Ellsworth Huntington, who writes: "The former and the latter rains do not refer to separate seasons of precipitation, but merely to the first heavy down-pours in November and December and to the last good rains in March or April." Dr. D. Ashbel prepared a rainfall map of Palestine, Transjordan, and Southern Syria; it was published in 1940 by the Hebrew University Press. It is based upon statistics available for the period 1859-1938.

**Lachish.**—In *PEQ.* (July, 1941), DR. DIRINGER discusses Ancient Hebrew inscriptions discovered at Tell ed-Duweir (Lachish). On account of the occurrence of certain names and patronymics he concludes that there was a "dynasty" of potters. The royal stamps are grouped under three subdivisions. In a post-scriptum C. H. Inge concludes that LMLK perhaps stands for BT LMLK. Two jars from Lachish have been recon-

structed; one bore a royal, the other a private seal. In other words, they held an official *bath*. Modern parallels are: "Royal Potteries" and "Imperial Standard Gallon." But even though this opinion be not valid, Inge believes that the LMLK jars and many of the jars with private seals were intended to hold one *bath*. He also concludes that the *bath* of the preëxilic period held about 10 gallons and was considerably larger than at the time of Josephus.

**Megiddo.**—A review of the results obtained at Megiddo is presented by one of the excavators, R. M. ENGBERG, in the *Biblical Archaeologist* iv (1), pp. 11–16. A description, with six illustrations, is given of the Canaanite palace of 1200 B.C., the ivories, the tunnel giving access to the spring outside the walls, the Hebrew occupation ca. 1050 B.C., the Solomonic stables, the commandant's residence, etc. An appended bibliography directs the student to sources of fuller information.

**Date of the Exodus.**—A. LUCAS has an article on the Date of the Exodus in *PEQ.* (July, 1941), in which he accepts ca. 1446 B.C., as favored by J. Garstang and Alan Rowe.

**Jewish Burial Customs.**—*PEQ.* (July, 1941) refers to DR. YEIVIN's article in the *Bulletin of the Jewish Palestine Exploration Society* in which he discusses the origin of an ancient Jewish burial custom. A key was placed in the coffin of a deceased person; apparently it was used in cases where the departed had no male issue and was obliged to ensure his admission to eternal life by other measures. It seems that Babylonian Jews introduced this custom into Palestine about the end of the first or the beginning of the second century A.D.

**Manuscript in Baltimore.**—An illustrated Hebrew manuscript in the possession of Mr. Robert Garrett in Baltimore is described by Seymour de Ricci and W. J. Wilson, *Census of Mediaeval and Renaissance Manuscripts in the United States and Canada*, I, p. 869, no. 26, as a *Guide of the People of Israel* by Ramban (Nahmanides) in Hebrew, with a dedication and preface in Italian, written in Avignon in 1338 for Cardinal Gotio Battaglia, who presented it to Galeotto Malatesta. The cover is described as "original intarsia binding, of one wood inlaid with mother-of-pearl and ivory." One cover bears the arms of Gotio Battaglia, the other the Malatesta arms.

In *The Journal of the Walters Art Gallery* iv, 1941, pp. 27–44, ERWIN PANOFSKY of the Institute for Advanced Study discusses the manuscript

and demonstrates that the description in the *Census* is almost entirely incorrect. This is due to the fact that it was based on information contained in the Italian dedication and preface. This preface is shown by Panofsky, in a charming *exposée* which defies a brief summarization here, to be an eighteenth-century forgery, as are also the cover and heraldic insignia. The manuscript itself proves to be a book of Jewish ritual. It is in two parts, of which the first is profusely illustrated, with miniatures depicting "the religious life of the righteous from the cradle to the grave" in north Italian style of the late fifteenth century.

**Mice in Plague-Representations.**—In *The Journal of the Walters Art Gallery* iv, 1941, pp. 105–113, OTTO NEUSTATTER, a distinguished scholar of medical history, discusses mice in plague pictures and the possibility that ancients were aware that mice and rats were carriers of the disease, a fact that was discovered certainly only in 1894. Some scholars have argued that the causal relation was recognized, but Neustatter concludes that it was not. Mice are found only in representations of the plague among the Philistines described in I *Samuel* v, chief among which is the painting in the Louvre by Nicolas Poussin. Other pictures of the story are to be found in illustrated Bibles. The description in the text of *Samuel* speaks of an invasion of mice, as well as an affliction of plague, and the pictures are undoubtedly literal illustrations of the two afflictions without any realization of their actual relationship.

**Syrian Glass Vase.**—The Metropolitan Museum's rich collection of ancient glass was further enriched in 1937 by an interesting globular vase of thick brownish glass, ornamented with two rows of glass disks, separately made, and then affixed to its surface. Such vases are relatively rare, examples in Toledo, Berlin, and the Eumorfopoulos Collection being cited. This vase belongs in the Sassanian period, and is dated in the sixth or seventh century (M. S. DIMAND, in *BMMA.* xxxii, 1937, pp. 207–208; fig.).

**Petra.**—A deeper insight into the culture of Petra is provided by the catalogue of finds made there by the HORSFIELDS. The first instalment of this catalogue is presented in *QDAP.* ix 1941, pp. 105–204, plates VI–XLIXB, figs. 1–55. The materials come from graves, stratified and unstratified dumps and cuts, and from surface finds and purchase. The earliest objects are some Iron Age Edomite sherds from the top of *el*

*Biḡāra*. The fact that none of these sherds have ever been found in Petra proper suggests that *el Biḡāra* is indeed the Biblical Edomite *Sela'*. Two other objects of early date are a scarab, purchased at Petra, but seemingly of Palestinian workmanship, and a bronze arrow-head of Hellenistic design, probably a relic of the Greek attack on Petra ca. 312 B.C. From the third century B.C. come a few fragments of imported black glazed ware and some inscribed Rhodian jar handles, evidences of commercial contacts. Among the second-first century B.C. remains we note some Eastern sigillata and fine patterned ware, mostly of Pergamene type, a coin of Tigranes the Great (83-69 B.C.) and several bits of faience of Egyptian, Syrian or Italian origin. Foreign objects become still more numerous in the first century A.D. when we note specimens of Western sigillata, Gaulish and Arretine, Eastern sigillata, imported glass articles, and many lamps of Italian (?) and Egyptian (?) origin. For bits of faience that may be Parthian work, see nos. 113, 172, 263, 264b. The Roman conquest in 106 A.D. brought no increase in foreign wares; in fact, Western sigillata disappears and even Roman objects become comparatively rare. The datable Nabataean objects—lamps, pots, pilgrim bottles, etc.—range from the third or second century B.C. to the sixth century A.D. Some ninety specimens of Nabataean painted pottery are shown, ten being dated to the first century B.C.-A.D., one to the first-second century A.D., one to the second-third century. Evidently the art of painting pottery was confined to the period from the first century B.C. to the third century A.D. Quite a few small sculptures and reliefs were recovered, besides one headless life-sized marble statue. The predominance of horses to camels (10:5) in the sculptures is noteworthy. Two curious figurines depict the back of a female figure seated on a pedestal decorated with an incised oblong pattern (nos. 257, 258). What is their significance? The inscription on the lamp (no. 414) has an *m*, not *n*, as the second last letter. The proportion of finds from the various periods suggests that Petra suffered a marked decline in its fortunes some time during the third century A.D., the cause of which remains to be determined.

## GREECE

### GENERAL AND MISCELLANEOUS

*Seisachtheia* and *Nomothesia* of Solon.—The orthodox date for Solon's archonship, 594/3 B.C.,

was undisputed until the discovery of the *Athenaion Politeia*, when two passages occurring in this treatise made this date doubtful. N. G. L. HAMMOND in *JHS*. lx, 1940, pp. 71-83, reconsiders these two passages (xiii, 1 and xiv, 1) and shows that the *Athenaion Politeia* in fact gives the date for Solon's archonship, during which the *Seisachtheia* was enacted, as 594/3, and also gives the date of a second commission, during which the *Nomothesia* was passed, as 592/1. That Solon held two separate commissions is supported by evidence derived from authors using Apollodorus, and from Plutarch and Aristotle, using Androtion. The obscurity in which Solon's career at Athens has lain is due to a misapplication of the important chronological clue in *Ath. Pol.* xiv, to the emendation of *Ath. Pol.* xiii, and to the fact that it has not been sufficiently realized that Plutarch's *Life of Solon* is a more faithful account than the *Athenaion Politeia* of what Athens believed Solon to have done.

*Cult of Aphrodite*.—In *Hesperia* x, 1941, pp. 381-387, G. W. ELDERKIN discusses the cult of Aphrodite in Athens under the title, "The Hero on a Sandal." The hero is Aigeus, who shared a heroön with the goddess, just as Cecrops did with Athena.

*Greek Foot Bath*.—In *BMAA*. xxxiv, 1939, pp. 23-25 (3 figs.), MARJORIE J. MILNE publishes a bronze bowl on a low tripod base, that had recently been acquired by the Metropolitan Museum. The preservation is exceedingly good, probably owing to the fact that the entire vase was cast and not hammered. Base and bowl were separately cast, and were originally soldered together; the two horizontal handles are soldered to the vase, and the feet to the ring of the base. There are not many such bowls preserved, but they frequently appear on vase-paintings, and from that source, and from literary evidence, we know them to be foot baths. For the proper period of this bowl we must turn to the few extant examples, and a date of 475-425 B.C. is suggested.

*Notes on Seleucid History*.—W. W. TARN discusses in *JHS*. lx, 1940, pp. 84-94, two notes on Seleucid history, namely Seleucus' 500 elephants of Ipsus, and the site of Tarmita. In the first note Tarn points out that five hundred is the stereotyped figure in Indian literature for a large number, which is an important number. The source for the information about Seleucus' 500 elephants was Megasthenes, who simply used the round number for an important force, whereas

150 was perhaps the more likely number which Seleucus got from Chandragupta, of which twenty were lost. Tarmita, the city with which the second note deals, known to have been the Demetrius founded by Demetrius of Bactria on the north bank of the Oxus, was the mediaeval Termedh, the modern Termez. Tarn now demonstrates that this Greek city was successively an Alexandria, an Antioch, and a Demetrias. This information throws an interesting light on a little known phase of Seleucid history, the rule of Antiochus I in the East, 293-280 B.C.

**Hellenistic Bronze Mirror.**—In *B.M.A.* xxxvi, 1941, pp. 168-170 (2 figs.), GISELA M. A. RICHTER publishes a mirror recently acquired by the Metropolitan Museum, said to have been found in Corinth. The cover is missing, but the relief with which it was decorated is preserved, and represents a combat between two warriors, one of whom has fallen. This mirror first appeared in a sale in Paris in 1899, and has recently been published by Schefold (*Die Antike* xvi, 1940, p. 34 f.) when it was in a collection in Switzerland. The date he assigns (360-350 B.C.) is certainly too early, and a date not earlier than the end of the third century, and more probably the beginning of the second, is nearer correct.

**St. Paul at Athens.**—A praiseworthy attempt to depict the Athens which St. Paul visited is made by W. A. McDONALD in the *Biblical Archaeologist* iv (1) (Feb. 1941), pp. 1-10, 10 figs. This little bulletin, published by the American Schools of Oriental Research, endeavours to present in popular form the results of archaeological research in so far as they illuminate the Biblical pages. The recent excavation of the Athenian Agora, where St. Paul preached, has furnished the occasion for presenting a reconstruction of the site and a general survey of the more important monuments of the city, following in the footsteps of Pausanias.

**Intertwined Rings.**—In *Short Communications* vii, pp. 93-97, B. E. DEGEN discusses the pairs of intertwined rings found in many Scythian and Sarmatian graves. They are usually referred to as "strange objects" and their use seems to be indefinite. He suggests that they were originally a device for girding the sword to the waist, when the sword was suspended by a strap from the shoulders as in the *Odyssey* (xxi, 432, and xiv, 528, 529). Later, after they went out of use, they were taken by the Sarmatians for ornaments without regard to their place of origin.

## AEGEAN CIVILIZATION

**Votive Double Axes.**—The Metropolitan Museum has recently acquired three miniature bronze double axes (of which one is illustrated), said to have come from the cave of Arkalochori in Crete, and to date in the beginning of the Second Late Minoan period, about 1500 B.C. Another recent gift, of a set of four bronze strigils, is noted in the same article by C(HRISTINE) A(LEXANDER) in *B.M.A.* xxxvi, 1941, p. 18 (fig.).

## ARCHITECTURE

**The Stoa Basileios.**—R. E. WYCHERLEY in *JHS.* lx, 1940, pp. 95-96, supports H. A. Thompson's theory that the winged building at the north end of the west side of the Agora in Athens was both the Basileios and the Stoa of Zeus Eleutherios as the most convincing solution yet offered for the problem. He gives his support to this theory against Rumpf's contention that the Hellenistic building north of the Market Hill was the Basileios, and against Judeich's and Dörpfeld's identification of the Basileios as the fourth-century temple of Apollo Patroös.

## SCULPTURE

**Akanthos Column at Delphi.**—In *Hesperia* x, 1941; pp. 373-380, G. W. ELDERKIN interprets the Akanthos column at Delphi as a dedication of Knidos (whose symbol was the acanthus), to Apollo (Akanthos was the father of Helios). This is the ancestor of the "Corinthian" order, and other Corinthian temples, at Corinth, Rhodes, Argos, and Gela also are dedicated, appropriately, to the cult of the sun.

**Fifth Century Relief.**—The Metropolitan Museum has recently added to its Classical collection a fine Greek relief, formerly in a private collection in Paris, and said to have been found in Attica. This is published by GISELA M. A. RICHTER in *B.M.A.* xxxvi, 1941, pp. 67-70 (fig.). She dates it in the second half of the fifth century B.C., on stylistic grounds. The relief represents a combat scene—at the left, a warrior has put his foot upon his fallen opponent, and is about to deal the death-blow with his spear. The opponent wears a conical helmet, and a mantle down his back, and has drawn a dagger, which he holds point upward, as if to aim it at his enemy's heart. The top of the slab is missing, having been broken in antiquity, but the vigor of the composition is not affected. It is surely a grave monument,



erected to a soldier who died in battle, and the suggestion is made that he was a casualty of the Peloponnesian War, and that the fallen warrior with the upturned dagger is a Spartan.

**Greek Bronze Figurine.**—In *The Journal of the Walters Art Gallery* iv, 1941, pp. 119–122, DOROTHY KENT HILL publishes a tiny bronze figurine from the Walters Collection, representing a “creature with pig’s head and forequarters, and a human trunk and legs, proceeding on all fours with the right knee slightly in advance of the left.” The piece, which is dated in the fifth century B.C., is only 0.046 m. in length. It was probably attached originally to the shoulder of a bowl. This figurine and other somewhat similar combinations of human and animal forms, which are to be found in scenes on vases, are undoubtedly to be identified as the unfortunate comrades of Odysseus after they had been transformed into swine by Circe.

**A Family of Sculptors.**—In *Hesperia* x, 1941, pp. 351–360, S. Dow publishes a schematic stemma of a family of sculptors from Tyre who flourished in 188–23 B.C. One of them was the sculptor of the base dedicated to the pancratiast Menodoros, the largest inscribed base now known from the Athenian Agora. Another, according to Dow’s ingenious restoration, was the sculptor of the Apollo Piombino, and his name may be read on a lead inscription inserted into the interior of the statue through the eye. Except perhaps for the family of Praxiteles, there is no family of Greek sculptors of which more members are actually known by name as having practiced the craft.

**A Marble Lamp.**—J. D. BEAZLEY in *JHS*. lx, 1940, pp. 22–49, undertakes a study of stone lamps which appear before the end of the seventh century in Greece. He centers his discussion around a marble lamp, purchased in London in 1931, coming probably from the island of Melos, and made of fairly coarse-grained white island marble. The shape is semicircular, with four projections, the largest the nozzle of the lamp. It is carved in the form of a human head in “daedalic” style. The other three projections are pierced vertically, and served to hold the chains for the purpose of suspension. The lamp could stand as well as hang. With this lamp Beazley associates nine other semicircular lamps from various sites. In addition he discusses nine closely related lamps, also of island marble, circular in shape, with something floral suggested in the

designs. Some of the circular lamps have a hole in the middle by which they might be set on a spike. All of these lamps come from widely distributed centers. Besides the group of circular and semicircular lamps Beazley examines a mixed lot of stone lamps, six of marble, two of limestone, and six of soft steatite, of varying shapes and sizes, and finally one related bronze and one clay lamp.

## VASES

**Early Greek Vases at Al Mina.**—MARTIN ROBERTSON publishes in *JHS*. lx, 1940, pp. 2–21, the Greek pottery from levels 5 to 9 at Al Mina, Sueidia. This material falls into two groups: that from levels 5 to 7, and that from levels 8 and 9. From the latter group the earliest in type are fragments of a dozen cups decorated with concentric semicircles dependent from the rim; the clay is a dull pink with a yellow or cream slip; the style is Protogeometric in origin, but the fragments are of a late date, coming perhaps from Tenos in the Geometric period. Other examples include Cycladic Geometric ware. In levels 5 to 7 there is a much smaller proportion of Cycladic ware against the East Greek than in the lower levels. The large majority of “Rhodian” fragments at Al Mina belong to the broad-jug style. There was also a small but steady importation of Protocorinthian fabric in these levels. By far the larger part of the pottery is Cycladic or “Rhodian,” the latter predominating in the upper levels, the former in the lower. These terms cover products of a number of centers. Of distinguishable centers other than Corinth are a Chiote fragment, one Attic, several possibly Argive or Laconian. The chronology of this pottery may well go back into the eighth century, though much of the Cycladic material from the lower levels gives the impression of being no earlier than the first quarter of the seventh century, whereas the latest Rhodian fragments belonging to “Rhodian B” ware seem to come in about 600. There is a gap of at least fifty, perhaps eighty years between the pottery of level 4 (ca. 520 B.C.) and that of 5, and in the evidence for Al Mina’s Greek contacts.

**Early Vases.**—CHRISTINE ALEXANDER, in *BMM.A.* xxxiv, 1939, pp. 98–100 (2 figs.) lists among recent accessions of the Metropolitan Museum a Protocorinthian aryballos (this shape is also often called a lekythos) with two friezes of running lions, dating in the first quarter of the seventh century; a small Corinthian hydria



decorated with the scene of Herakles in combat with a Centaur, in the presence of a sphinx, assigned to the First Late Corinthian style, of 575-550 B.C.; and a fragment of a Proto-Attic vase, with the head of a lion, dating about 625 B.C.

**The Export of Attic Black-Figure Ware.**—B. L. BAILEY in *JHS.* lx, 1940, pp. 60-70, surveys chronologically in twenty year periods the export of Attic Black-Figure ware hitherto found at various sites. Detailed maps accompany the discussion for each period. For the earliest period, 620-600 B.C., the distribution is fairly restricted to important trading centers of the seventh century, Corinth, Aegina, and Cervetri, but includes also Naucratis and Marseilles. Between 600-580 B.C. the distribution of the fabric spread to the East and Northeast and to key points in Italy and Sicily, Tarentum, Locri, Rhegium, Cumae, and Syracuse, apparently along a definite trading route, established probably by Corinthian shipping. During the next twenty years (580-560 B.C.) the diffusion of Attic Black-Figure in Greece and at eastern and western sites is intensified; it is consolidating its position. After 560 B.C. the nature of the material makes it wise to treat the ware for the period of 560-520 B.C. in the course of which the increased distribution, especially in the West, is sudden and emphatic. It follows the normal lines of expansion east and west, and reaches sites hitherto monopolized by Corinthian ware. Syracuse is, on the whole, a very scant importer of early Attic ware, and only comes fully into the market in the middle of the sixth century. After 520 B.C. there is no profit in tracing the export of Attic Black-Figure ware without that of Red-Figure, a subject in itself.

**Fragment of an Attic dinos.**—In *Art in America* 29, 1941, pp. 208-216, F. P. JOHNSON publishes a fragment of the rim of an Attic dinos in the Classical Collection of the University of Chicago, decorated in black figure. On the outside of the rim there is an ivy pattern; on the inside, the prow of a warship, with a warrior standing on it; on the upper surface, a chariot with four horses, a warrior, and a charioteer. The warrior is identified by an inscription as Diomedes. Two other names are incomplete. There is some possibility that the fragment belongs to the rim of the Castellani dinos which bears the signature of Exekias as "maker." There are, moreover, certain features of style and decoration which suggest that Exekias may also have been the painter.

## INSCRIPTIONS

**Attic Stoichedon Inscriptions.**—A. E. RAUBITSCHKE provides six notes on early Attic stoichedon inscriptions in *JHS.* lx, 1940, pp. 50-59. The engravers of such texts, he points out, quoting R. P. Austin, *The Stoichedon Style* p. 16, i.e., either the sculptors or the engravers employed by them, were pioneers in the new style. Every study of stoichedon documents of Attica must begin with the dedication of Nearchos signed by Antenor (see note iii). The clear distinction between the dedicatory inscription and the artist's signature is not a peculiarity of the monument signed by Antenor, though both show fully developed stoichedon style as does the disregard of the syllabic division (see Note v). In addition to the reasons set forth by Austin for the development of the style in Attica, Raubitschek suggests that the dedication of Nearchos, signed by Antenor, and dating in the latter part of the sixth century, prompts the suggestion that the vertical striation of the front face facilitated the engraving of the stoichedon inscription (see note vi). Horizontal striation was also a factor in the engraving of the horizontal stoichoi. Detailed discussion on many early stoichedon inscriptions is included.

**Epigraphical Emendations.**—In *Hesperia* x, 1941, pp. 262-283, W. KENDRICK PRITCHETT publishes additions to or corroborations of the conjectures in *IG.* ii\* 25, 1141, and 145; adds evidence on the year of Apollodoros (319/8 B.C.); contributes to the series of prytany-lists new catalogues of Demetrias (mid-third century B.C.), Kekropis (184/3), and Attalis (131/0); rejects Kahrstedt's new theory that two financial officers could not have payments from the contingent fund of the demos, basing his argument on a new decree of the late fourth century; dates a new archon, Alexandros, in 173/2 (?) B.C.; and presents a new citation in honor of the flautist Technon of Phegeia, *floruit* ca. 155 B.C.

**Epigrams in Greek Epigraphy.**—In *Hesperia* x, 1941, pp. 284-295, A. RAUBITSCHKE continues his special studies of epigrams in Greek epigraphy with a discussion of an honorary stele set up for the heroes of Phyle, which he dates 403/2, and on which can be restored not only the text of the epigram cited in Aeschines, *In Ctes.*, 187, but also the name of Thrasyboulos and certain other democrats. The stone was found near the site of the Metroön, where Aeschines said it was, and throws the burden of proof on those who doubt

the reliability of literary citations of epigraphic sources.

**Epigraphic Methodology.**—In *Hesperia* x, 1941, pp. 391–397, W. KENDRICK PRITCHETT, in a note on epigraphic methodology warns of the danger of an over-rigorous pseudo-scientific method. Counting iota as a half-letter, for example, sometimes gives a false impression of accuracy (an example is *HarvSt.* xli, 1940, pp. 244 ff.). It is unsound to use a statistical basis for reasoning as to the chances of a son's having the same name as his father, or as to the chances of one man's holding the same office twice.

**Inscriptions from the Athenian Agora.**—In *Hesperia* x, 1941, pp. 398–401, there appears a useful list of inscriptions from the Agora published elsewhere than in *Hesperia*, including the sepulchral monuments of the new fascicule of the *Corpus*, ed. *min.*

**Attic Decrees.**—In *Hesperia* x, 1941, pp. 301–337, B. D. MERITT provides some useful notes on Attic decrees which every Greek epigraphist will want to add to his copy of the *Corpus*. Additions are made to *IG.* i<sup>2</sup> 1, 24, 27, 45, 49, 70, 83, 116, 144, 154, 156, 166, 171, 179; to *IG.* ii<sup>2</sup> 38; and to *Hesperia* vii, 1938, p. 175, no. 10. Most of the commentary is an extension of that published by the dean of Attic epigraphers, Adolf Wilhelm, as *Att. Urkunden IV* in *Sitz. Ak. Wien*, 1939.

**Inscription from Phlius.**—In *Hesperia* x, 1941, pp. 371–372, ROBERT H. SCRANTON publishes a correction of an inscription from Phlius (*Hesp.* v, 1936), based on a demonstration that the stone-cutter allowed his text to get out of alignment.

**Inscription from Rhamnous.**—In *Hesperia* x, 1941, pp. 342–350, JOHN H. KENT discusses a garrison inscription of the early second century B.C., from Rhamnous. The frontier garrisons, a sort of rural police force, discharged the functions earlier assigned to the ephebes: they kept order at harvest-time, at the celebration of the Eleusinian mysteries, and among the slaves in the silver-mines at Laurion. By adducing a number of similar inscriptions from the *Corpus*, Mr. Kent throws new light on a little-known Athenian political institution, and proves once more the efficacy of Prof. Robert's advice about the helpfulness of collecting inscriptions on like subjects, so well demonstrated, for example, by Dow's *Prytaneis*.

**Two New Inscriptions.**—In *Hesperia* x, 1941, pp. 338–341, E. SCHWEIGERT publishes two third-century inscriptions: one a decree of 280/79,

in honor of Komeas, hipparch of the Athenian kleruchy on Lemnos (a copy of *IG.* ii<sup>2</sup> 672); the other a treaty between Athens and Aetolia, dated between 288 and 274 B.C.

#### NUMISMATICS

**Athenian Bronze Money.**—In *Hesperia* x, 1941, pp. 199–236, MARGARET THOMPSON corrects the attribution by Svoronos (*Tresor*, pl. 25) of certain Athenian bronze money to Eleusis, Skiathos, and Peparethos, and on the basis of prosopography, chemical analysis, style, matched dies, the context of the finds in the Agora, and history, suggests for the coins dates in 89 B.C. and later. Her findings are soundly based on Newell's premise that bronze coinage is seldom found far from its place of mintage, and upon her realization that unorthodox obverse and reverse symbols represent not non-Athenian origin, but the personal tastes — and possibly, it may be added, the gentile affiliations — of the mint magistrates, who could indulge their fancy with impunity on a purely local coinage. The prosopography of the puzzling *IG.* ii<sup>2</sup> 2452 and of 2333 is incidentally corrected (note 59), and there is promise of a continuation of the valuable work on Athenian chronology of the first century B.C. begun in the late M. L. Kambanis' study of matched dies in Athenian silver of the New Style: a notable contribution of numismatics to the study of ancient history.

**Magna Graecia.**—In *NM.* 91, EUNICE WORK supplies the groundwork for an accurate chronology of the staters of Heraclea Lucaniae, from their beginnings to ca. 300 B.C. She has gathered the sources for the history of the city from the ancient writers, and studied the coins of neighboring cities for grouping of types and signatures, and evaluated the evidence to be derived from hoards. Lastly, she has made an exact comparison and grouping of the Heracleian dies in sequence.

**Coin of Elis.**—*ILN.* 1941, p. 392, publishes a coin of Elis, in the possession of Cambridge University, with the head of the Zeus of Pheidias on its reverse side.

**Cilicia.**—Two hundred and forty-six coins out of a collection of 815 from the excavations at Tarsus, presented by Miss Hetty Goldman to the Museum at Adana, are described by DOROTHY H. COX in *NM.* 92. The coins studied range in time from those of Philip II and Alexander and later Macedonian kings to Imperial types of the third century, mostly from Cilicia.

## ROME

## GENERAL AND MISCELLANEOUS

**Bronze Hut-Urn.**—In *B.M.M.A.* xxxiv, 1939, pp. 66-68 (2 figs.), GISELA M. A. RICHTER publishes an urn in the Metropolitan Museum, especially fine and well preserved, and the only known example of a hut-urn in bronze, all others previously published being of stone or terracotta. These urns were used in cremation burials, and reproduce the form of the dwellings of their time, otherwise unobtainable to our knowledge. They date in the ninth and eighth centuries B.C., this one belonging in the end of that period. The presence of an animal's head over the door may have a mystic or ritual significance. At the top of the roof is a boat-like object recalling the Greek or Phoenician ships. Made in a separate piece, it was fastened to the roof by rivets. It may mean that the deceased was a seafaring man, but as the provenance is unknown, and as we know so little of the Villanovan culture, no absolute answer to this question can be given. The writer's last paragraph deals with the authenticity of the urn, which she believes to be entirely genuine.

**Mosaics from Antioch.**—One entire number of the *Q. Balt. Mus.* (ii, no. 4, 7 pp., 3 figs.) is devoted to the mosaics from Antioch in the Baltimore Museum of Art. C. R. MOREY, on pp. 3-5, describes them and dates the earliest in the second century A.D. Antioch produced a large number of fine mosaics in the third century, the best of which came to Baltimore, and are described. One, representing a "Symposium" of Fruit, Field and Wine (personified) is perhaps the most important third-century painting in existence. Others belong in the fourth and fifth centuries. On pp. 5-6, R. J. MCKINNEY and ROLAND WEHRHEIM discuss different phases of their restoration, and give certain recommendations regarding future restoration work in this field.

**Etruscan Chariot Fittings.**—In *B.M.M.A.* xxxiv, 1939, pp. 41-44 (6 figs.) GISELA M. A. RICHTER publishes a number of fragments of bronze, some of extraordinary beauty, in the Metropolitan Museum, said to have come from a tomb in Central Italy. It is probable that they came from a chariot. All told, more than sixty bronze pieces and twenty-odd fragments of iron were included in the collection. One beautiful piece is decorated with a youth playing the lyre—others are decorated with serpents, and with elaborate scrolls, palmettes and lotus-buds; one is a small

Medusa-mask, one the mask of a satyr, and finally a finial, probably for the end of the hitching-pole, is in the form of the head of a kid. Only one other such set is known, in the Villa Giulia in Rome. The style of decoration marks these bronzes as Etruscan, and a date in the early fifth century is assigned. The objects were cleaned and prepared for exhibition by several different hands, which accounts for the varying types of patina to be seen.

**Glass Bowl.**—C(HRISTINE) A(LEXANDER), in *B.M.M.A.* xxxvi, 1941, p. 21 (fig.) publishes a banded glass bowl recently acquired for the Metropolitan Museum. This bowl first appeared before the public in 1908 as in the Vogell collection, and comes from Southern Russia. From the Vogell it passed through the hands of two other collectors before reaching New York. It is of a rare form of millefiori glass; the decoration is in the form of a cross in different colors, and is translucent. Originally doubtless made in Alexandria, it was exported in antiquity to the Crimea and surely belongs in the first century A.D.

**Roman Fort in Alsace.**—His notes and records left behind at the evacuation of Strasbourg, R. FORRER reports briefly from memory on the discovery and excavation of a small fifth-century Roman fort at Dachstein (*CRAI*, 1940, pp. 176-181). The building was discovered by accident during the planting of an orchard. It is square in plan, with walls several meters thick, built in part of reused materials which include inscribed and sculptured grave stelae and architectural blocks. The floor was found covered with a layer of ashes; it held fragments of pottery, tiles, and various utensils of bronze, but nothing of high intrinsic value. The fort had evidently been destroyed by fire, but had not been taken by storm: there were no arms or armor about, no ammunition or missile weapons. The place had been burnt and abandoned without resistance to oncoming hordes of Germanic barbarians.

## INSCRIPTIONS

**Inscription from Banasa.**—In *CRAI*, 1940, pp. 131-137, R. THOUVENOT publishes an inscribed bronze plaque found in December, 1939, during the course of excavations at Banasa in Morocco. The inscription, dated to the sixth consulship of Vespasian (A.D. 75), records the establishment of Sex. Sentius Caecilianus as *patronus* of the colony Julia Valentia Banasa. Thouvenot examines briefly the points of historical interest in the

document: new evidence for the importance of this colony, information about Vespasian's reorganization of the provinces, and an exact dating of the consulship of Sentius Caecilianus.

**Latin Inscription from Corinth.**—In *Hesperia* x, 1941, pp. 388–390, O. BRONEER publishes a Latin inscription to prove that in the time of the emperor Claudius the official name of Corinth was Colonia Laus Julia Corinthiensis.

**Hadrianic Documents.**—In *Hesperia* x, 1941, pp. 361–370, JAMES H. OLIVER publishes three documents concerning the emperor Hadrian. Two are copies, of IG. ii<sup>2</sup> 1094 and 1088; the third is a letter (dated between 119 and 128 A.D.), to the inhabitants of Beroea in Macedonia.

**Inscriptions from the Athenian Agora.**—In *Hesperia* 10, 1941, pp. 237–261, J. H. OLIVER continues the publication of Greek and Latin inscriptions from the Athenian Agora. These include dedications to a Roman senator; the *cursus honorum* of A. Didius Gallus; dedications to Vespasian, Hadrian, Septimius Severus, and Caracalla; epitaphs of Roman soldiers and a sailor stationed in Athens in the time of Trajan; the preamble of a prytany-list dated after 125 A.D.; various dedications to Apollo, and one to Demeter and Kore, from the Eleusinian in Athens; and honorary decrees for P. Aelius Phaedrus, Eupatrid exegete in the second century after Christ, and for the wife of the sophist Apsines (shortly before 238 A.D.) who boasts her descent from a *daidouchos* of the Eleusinian mysteries and thereby attests the vitality of the gentile tradition in Athens in the period of the *Zweite Sophistik*.

#### POTTERY

**Sigillata from Lesbos.**—W. LAMB and F. N. PRYCE in *JHS*. lx, 1940, pp. 96–98, treat the sigillata pottery from Methymna found by Miss Lamb in a trial excavation there in 1929. Pryce, in analyzing the material, states that all the sherds appear to belong to the fabrics of the Eastern Mediterranean, and include samples of the two main wares found in eastern sites, the white clay and the red clay, the latter predominating. They are divided into two groups. The first group of three sherds are distinguished by whitish-buff clay, the varnish bright brownish-red with a tendency to flake. A group of fifteen sherds of pink micaceous clay show seven fragments with bright lustrous varnish and excellent finish and seem to be approximately of the Augustan age; eight represent a later stage. In these the varnish

is more blotchy and more thinly applied. In the third group the three sherds are of late fabrics in which the sigillata tradition only faintly survives.

**Roman Glazed Amphorae.**—In 1938 Mr. John D. Rockefeller, Jr., gave the Metropolitan Museum two handsome Roman amphorae, published by GISELA M. A. RICHTER in *BMAA*. xxxiii, 1938, pp. 240–242 (2 figs.). One of these vases is much akin to one already in the Museum, the reliefs with which it is decorated being made from the same molds. The glaze is brilliant; in the case of this example it is green, much disintegrated, while the other vase, slightly smaller, and of a somewhat different shape and decoration has a finely preserved glaze of peacock blue. The writer describes the technique of manufacture, and lists the places where such vases have been found. The theory that the Parthians may have originated the ware is gaining ground, and it certainly must have started in the East, but vases like these could well have been made in more than one place. The date of its first beginning is difficult to fix, but it must have been in existence as early as 50 B.C., from the evidence of Dura, and it may go back still further. It is not possible to date these pieces precisely, as we know nothing of their provenance. This type of pottery is, of course, the prototype of the much later celebrated Rakka ware.

#### NUMISMATICS

**Coins from Jerash.**—The coins found in the course of the excavations at Jerash are analyzed and fully described in *NNM*. 81 by ALFRED R. BELLINGER. Five hundred and sixty types of coins are described, and while they do not fairly represent the various periods of the city's history, because the digging pursued the investigation of certain monuments, the study presents the groundwork of a picture that the results of later excavations will complete. The coins cover the period from Ptolemy II, 271–246 B.C. to the Saracen conquest, the period B.C. being very sparsely represented. There is a disproportionately large number of bronze coins from the reign of Justin II, 565–578, and many Arabic imitations of them, among which are some rare specimens bearing the name Scythopolis (Bethshan or Baysan) with Arabic inscriptions added.

**Temples on Roman Coins.**—DONALD F. BROWN publishes, in *NNM*. 90, a study of the coin types of ancient Rome which represent temples. Temple types appear on coins from 88 B.C. to 311 A.D., and forty-three temples are represented. The



study is thoroughgoing within the limits set for it, and will fit into a larger corpus of architectural types now proceeding under the direction of Dr. Lehmann-Hartleben.

**Rome—Empire.**—An exhaustive study of the gold and silver standards prevailing in the Roman Empire from the reign of Augustus to that of Diocletian is made by LOUIS C. WEST in *NNM*. 94. The study abounds in tables which show the varying relationships between gold and silver in each reign, and their varying weights. The weights of over nine thousand coins have been considered and tabulated, and the tables accompanied by abundant commentary. The work will be a convenient and valuable source of reference.

**Coins as Illustrations of Daily Life.**—The Metropolitan Museum has added to its exhibition of objects illustrating the daily life of the Greeks and Romans a number of coins, published and explained by CHRISTINE ALEXANDER in *BMA*. xxxiii, 1938, pp. 184–186 (fig.). The coins are all Roman, and consist of (1) two silver denarii struck by Augustus to celebrate his victory at Actium; (2) a denarius and a gold coin of Augustus showing a triumphal arch; (3) a gold coin of Claudius (illustrated) giving a view of the Praetorian Camp; (4) a gold coin of Marcus Aurelius in honor of his German and Sarmatian victories; (5) a gold coin of Probus (illustrated) with a chariot; (6) a coin of 58 B.C., commemorating the defeat of Aretas, king of the Nabataean Arabs; (7) a coin of Vespasian, showing Judaea bound in captivity; (8) a gold coin of Hadrian, commemorating the conquest of Africa (illustrated); (9) a denarius of Septimius Severus. A number of other coins are exhibited, to illustrate scenes of religion and mythology. These include five Republican coins, one showing the Dioscuri, one Odysseus and the hound Argos, one with Aeneas carrying off Anchises from Troy, one, a gold coin of Julius Caesar (illustrated) showing his implements as augur and Pontifex Maximus, and one struck by Brutus, his assassin, with a priest between two lictors. There are also a number of Imperial coins in this group, one of which, a gold coin of Augustus (illustrated) shows the constellation Capricornus. Other coins are of Tiberius, Claudius, Titus, and Domitian. In the group of objects devoted to commerce, several coins are included—an aureus of Augustus, celebrating his repair of roads; a similar coin of Claudius; and one (illustrated) of Septimius Severus, distributing largesse to the people. Two coins of Trajan,

one of them showing his column, are also included. Coins of Titus and Otacilia, wife of Philip I, commemorate games and spectacles.

## EARLY CHRISTIAN AND BYZANTINE

**Early Christian Tapestry.**—The Fogg Museum has in its possession a very interesting collection of fragments, which formed parts of one, or perhaps two tapestries, said to have been found at Akhmim in Egypt. These fragments are published by W. R. TYLER in *Bull. Fogg Mus.* ix, pp. 1–13 (cover illustration and 9 figs.). The most important represents the head of a saint—the largest is a border with the inscription ΟΑΓΙ(ΟC) ΘΕΟΔΩ(ΠΟC). In all, there are ten fragments, which had been put together before reaching the Fogg Museum, but which have had to be rearranged. The textile is the same on both sides, and in some cases the wrong side was to the front. A comparison with other early Christian paintings and textiles is made, in order to explain a possible reconstruction. Akhmim is in Upper Egypt, three hundred and fifteen miles above Cairo; it was known to Herodotus as a place that willingly adopted Greek customs. It has yielded many textiles, some of which go back to the time of Hadrian, while the latest show Arabic inscriptions of the tenth century. It was, therefore, a prosperous community from Hellenistic times, and Christianity made rapid progress there. This tapestry shows a strong resemblance to one in Dumbarton Oaks, also from Akhmim, but is probably not by the same hand, as the Dumbarton Oaks tapestry is in the pagan tradition. Another group of fragments, in the Victoria and Albert Museum in London, has a border much like that in the Fogg Museum. A good parallel with this head of St. Theodore is that of St. Mark on a Coptic painted Gospel-Book cover in the Freer Gallery in Washington—but the stylistic quality of the tapestry, although woven in Egypt, is not Coptic, but Byzantine. A date at the turn of the fifth to the sixth century is tentatively suggested.

**Syrian Silk Weaves.**—In *BMA*. xxxii, 1937, pp. 259–262 (3 figs.) M. S. DIMAND publishes two pieces of Syrian pre-Islamic woven silk in the Metropolitan Museum. Such objects are extremely rare, and there are no others in American museums. One is from a larger piece, of which only three other parts are in existence; the second is one of five. The first shows two huntsmen on horseback, each shooting with bow and arrow at a crouching lion. In style they show the in-



fluence of Christian art. The second piece, known as the Dioscuri weave, shows two identical figures standing on a pedestal, and the sacrifice of a bull. The design shows Hellenistic influence. Opinions as to the place of manufacture vary—some regard them as Syrian, others as Sasanian. Egypt has also been considered the source for these early silks, of which the only examples known till recently were from that country, or from the treasuries of European churches. Raw silk was imported from China, for many centuries during the Roman Empire, and also woven silk fabrics. The discoveries at Palmyra prove that the Syrians imported silks and silk fabrics from China; and the use of the drawloom, a Chinese invention, is attested by local weaves in various provinces of the Roman Empire. The Iranians of the Sasanian period early established their own looms, and began exporting to other countries. Many examples in church treasuries have been identified as Sasanian. These examples in New York, whose existence has long been known, have been regarded, first as Sasanian, and then as Egyptian, but the writer believes them to be Syrian from various details of the designs, and from a comparison with other objects known to be Syrian. Furthermore, he ventures the belief that all such textiles, hitherto called Alexandrian, should be ascribed to Syrian weavers. The date is the seventh century A.D.

**Coptic Bone Plaques.**—In *B.M.A.* xxxiv, 1939, pp. 68–70 (fig.) HANNAH E. McALLISTER calls attention to a collection of fourteen carved bone plaques used to decorate furniture, in the possession of the Metropolitan Museum. These plaques are decorated with vine patterns, and probably were found at Fustāt or Old Cairo. They are characteristic of the art of the Early Christian period in Egypt, and date somewhere between the sixth and ninth centuries. Only one piece is colored, with a stain of a dark purple brown, and closely resembles a piece in the Victoria and Albert Museum in London.

**Excavations at Topkapu Saray, Stamboul.**—A brief report of excavations in the second courtyard of the imperial palace in Stamboul is presented by AZİZ OĞAN in *Belleten* iv, 1940, pp. 317–328 (French version, pp. 329–335); pls. LXXII–LXXXIII. The excavation was conducted for the Turkish Historical Society by Mr. Ogan, with the assistance of Mr. Arif Mansel and the collaboration of Professor Bossert and certain of his students of archaeology at the University of Istanbul.

Work began September 8, 1937, and continued for about two months.

The space available for digging was limited by the many buildings of the palace and the gardens in the courtyard, but two areas were found which could be satisfactorily examined. In the first an apsidal structure was revealed, some 15 m. long, perhaps originally a Christian chapel of the fifth century, but later rebuilt into a cistern. Although the surrounding ground was excavated to the level of native rock, no other buildings were encountered. The earliest objects recovered were a few potsherds identified as Protocorinthian.

In the second area of investigation the excavators found remains of a basilica, 35 m. long and 21 m. wide, with narthex, side aisles, and apse. Among the ruins were bits of paved floors, Corinthian capitals and other architectural blocks, and fragments of mosaic and painted stucco. Mr. Ogan sees a relationship between this building and the church of St. John the Baptist which was built by Stoudios in 463 A.D. and later converted into the Mosque of Imrahor.

A list of the coins recovered, arranged according to finding-places, is included in the Turkish version of the report.

**Twelfth Century Enamel.**—In *B.M.A.* xxxiii, 1938, pp. 244–246 (2 figs.) JAMES J. RORIMER publishes a Byzantine enamel plaque, formerly in the Botkine collection, now in the Metropolitan Museum, representing the Virgin with the Christ Child and St. Simeon, belonging on stylistic grounds to the second half of the twelfth century. It is of cloisonné work, which appears to have originated in Greece or Syria, and been introduced to the Far East from Byzantium. This enamel was doubtless used to decorate an icon, or perhaps a reliquary or book-cover. Its original provenance is not known.

**Frescoes in Athens.**—In *Hesperia*, x, 1941, pp. 193–198, M. ALISON FRANTZ publishes photographs and a short account of the earlier frescoes (the angel and the virgin of the Annunciation, St. Stephen, and St. Blasios) of the church of St. Spyridon at Athens (early sixteenth century).

#### MEDIAEVAL

**Catalan Painting.**—In *The Journal of the Walters Art Gallery* iv, 1941, pp. 45–87, MILLARD MEISS discusses painting produced in Catalonia in the fourteenth century and its stylistic connection with Italian painting. French painting of this period was also strongly influenced by Italian, but

"the French relation to Italian painting may be described as selective assimilation, the Catalan, on the other hand, almost as imitation." Two examples of Catalan art which Meiss discusses in detail are an altar-piece in the Pierpont Morgan Library and a triptych in the Walters Art Gallery.

**Mediaeval Writing Tablet.**—WILLIAM H. FORSYTH, in *B.M.M.A.* xxxiii, 1938, pp. 259–260 (fig.) records the gift to the Metropolitan Museum of a small ivory writing tablet, formerly in various private collections in France, and indubitably of French workmanship. The carvings are in four sections; at the upper left, a man makes love to a woman; in the upper right, the pair are seated and in amorous conversation; at the lower left, they are playing chess; and at the lower right the man kneels before the woman, who puts her arm around his neck. Each group is enclosed in a Gothic arch, with its supporting column between the two adjoining groups. That it is a writing tablet is attested by the existence of an area cut out of the back to hold wax for the stylus, similar to the tablets of antiquity. A date early in the fourteenth century is suggested.

**A Mary Magdalene at the Cloisters.**—WILLIAM H. FORSYTH, in *B.M.M.A.* xxxvi, 1941, p. 118 (fig.) describes and illustrates a statuette, about two-thirds life size, representing Mary Magdalene, or one of the other Holy Women, recently installed at the Cloisters. This figure is of French workmanship, and is said to have come from the Church of the Magdalene at Troyes, but this provenance is uncertain, and it may have come from some other province of Eastern France. A date in the fifteenth century is not impossible.

**Mediaeval Sculptured Saddle.**—In 1941 the Metropolitan Museum acquired by purchase the well-known Trivulzio Saddle, which STEPHEN V. GRANCAY publishes in *B.M.M.A.* xxxvi, 1941, pp. 73–76 (2 figs.). This saddle was never intended for use in war, but for triumphal processions. The saddle tree is of linden wood, covered with thin rawhide, and lined with birch bark. To the rawhide cover are attached sculptured plaques of staghorn. Holes are provided on either side to which the saddle-cloth was laced. The plaques are decorated with reliefs showing scenes of combat and ideal love, the principal preoccupations of the Age of Chivalry. The fight of St. George and the Dragon is shown, and three other encounters of knights and dragons. Six pairs of lovers are portrayed, showing the development of courtship from the first meeting to the ultimate triumph of

the united pair. Other incidental figures are a court jester, a woman holding the mirror of life, a dragon belching fire (to represent sin) an eagle, and other symbols. Similar saddles are in the museums at Florence, Vienna, and Modena, while others more distantly related are in Brunswick and Bologna. The saddle is difficult to date, but probably belongs at the end of the fourteenth century, and was doubtless made in Upper Germany. Before its accession by the Metropolitan, it was in the collection of Prince Trivulzio in Milan and sometime before 1935 passed into that of Clarence H. Mackay.

**Feudal Period in Russia.**—In *Short Communications* vii, pp. 3–10, N. N. VORONIN discusses the general features of the feudal period in Russia from the tenth to the thirteenth centuries. The great Kievan empire of Vladimir and Yaroslav disintegrated and the various feudal principalities developed each in their own way, although they tried to imitate Kiev. The result was the liberation of Russia from strict adherence to the Byzantine tradition, but the contacts with the West did not swamp the native spirit. They accelerated Russian development on independent lines, until the Mongol invasion checked the material culture at the very time when the West started to progress.

## RENAISSANCE

**Painted Enamels.**—The technique of painting in enamel and the works of one outstanding painter, the Master of the Orléans Triptych, are discussed by MARVIN CHAUNCEY ROSS in *The Journal of the Walters Art Gallery* iv, 1941, pp. 9–25. "In this method, a piece of copper is covered on the front and back with enamel, so that in the firing both sides expand and contract to the same degree. Then on this surface a picture can be painted in enamel without the use of wires or cavities to hold the fluid substance, such as was necessary in the earlier methods of cloisonné and champlevé enamelling." This latter method was developed to perfection at Limoges during the twelfth and thirteenth centuries. Enamel work became less popular in the fourteenth century, but sometime during the first half of the fifteenth century the new technique was invented and Limoges rose once again to fame.

Four fine pieces by the Master of the Orléans Triptych, so known "because the first enamel by him that was published is a triptych in the Museum at Orléans," are in the Walters Art Gallery. They are a triptych with the Annunciation, a

panel with a similar scene, a panel with a scene depicting the Madonna seated "under an arch holding a black bird in her hand with which the Christ Child, standing in front of her on a parapet, is playing," and the left wing from another triptych with a representation of St. James Major. This artist worked toward the end of the fifteenth and during the early sixteenth century.

The outstanding characteristic of these enamels is that they are elaborately detailed little pictures in strong contrast to the flat designs found on earlier enamels. Ross proves convincingly that the Master of the Orléans Triptych also illuminated manuscripts, and he thus concludes that painting in enamel was adopted by artists already trained, especially miniaturists. They merely painted their usual pictures in a new technique. With the advent of printing at this time there was a lessening demand for illuminated manuscripts, and undoubtedly skilled miniaturists turned eagerly to the new work for which they were so well suited.

**Sieneese Panel, Walters Gallery.**—In *The Journal of the Walters Art Gallery*, iv, 1941, pp. 97–103, S. LANE FAISON attributes a small tempera panel in the Walters Collection with a representation of the Resurrection to the artist who painted a panel with the Crucifixion now in the Metropolitan Museum of Art. He also concludes that the two panels formed part of the predella of the same altar-piece. Both panels have been assigned by other scholars to Bartolo di Fredi, while the New York Panel was attributed by Offner to Andrea di Bartolo. Faison proves that the attribution to Bartolo di Fredi is unacceptable, and he agrees with Offner that the painter was Andrea. None of the remaining panels of the predella or altar-piece have been identified as yet.

#### FAR EAST

**The Owl in Shang and Chou Bronzes.**—As a result of a loan exhibit of Chinese bronzes in American collections, held at the Metropolitan Museum in October, 1938, ALAN PRIEST, in *BMAA*. xxxiii, 1938, pp. 235–240 (5 figs.) takes up the treatment of the owl in the decoration of these objects. Some of the decorations may have been originally inlaid, while others were obviously never intended to be. Five types of bronze decoration are distinguished from one another, and it is possible to assign several specimens to a common workshop. The decoration is largely symbolic. After discussing various other figures of animals

and monsters, the development of the owl is considered. Almost every monster mask on the Shang and Early Chou bronzes is dominated by the owl, which forms the central part (nostrils, nose, eyes, and forehead) of each mask. From near naturalism the figure becomes conventionalized, and often difficult to recognize. No matter what form the monster mask takes (buffalo, ram, stag, etc.), the owl always appears. In the Chou Dynasty it gradually disappears, for a reason as yet unknown.

**Buddhist Altar-Pieces.**—In *BMAA*. xxxiv, 1939, pp. 32–38 (6 figs. and cover illustration) ALAN PRIEST publishes two altar-pieces of the Wei Dynasty acquired by the Metropolitan Museum from Mrs. John D. Rockefeller, Jr., after having been in the exhibition of Chinese Bronzes in American Collections. Only one other complete specimen, in the Museum of Fine Arts in Boston, is known to exist. These bronzes were discovered in 1924, and immediately brought to New York, where they were acquired by Mrs. Rockefeller, who lent them to several exhibitions before their permanent accession by the Museum. One dates about 524 A.D., the other probably about the same period. In each case the central figure is the Buddha, with the right hand raised in blessing, the left extended in charity. In each case a large aureole rises behind the Buddha, with a nimbus behind his head. On either side of the aureole are apsarases playing on musical instruments. Bodhisattvas and guardians appear beside both altar-pieces. In the smaller example, in front of the Buddha, and at his feet, is a reliquary supported by a genie. The article ends with an abstract of the religious significance of these remarkable bronzes.

**Bodhisattva from Lung Mên.**—In *BMAA*. xxxvi, 1941, pp. 114–116 (fig.) ALAN PRIEST publishes a stone fragment from Lung Mên, recently acquired by the Metropolitan Museum. This belongs in the T'ang Dynasty (618–906) when the art of the great temples of that site had passed its apogee and was on the decline. The great period of Lung Mên is in the Wei Dynasty, immediately preceding the T'ang. This is the only figure in relief of this period from this site; two figures in the round, one also in the Metropolitan, and the other in the Freer Gallery in Washington, are well known, and a number of heads exist, in various museums, as a result of looting after the Boxer uprising. A brief description of the caves of Lung Mên ends the article.

## U.S.S.R.

**Ukraine.**—Ten papers published in "*Culture Tripolienne*" (vol. 1, pp. 1-594 with plates and maps), published by the Institute of the Ukrainian Academy of Sciences in Kiev during 1940, were edited by M. I. IACHMENEV. These articles are devoted to excavations at Tripolje since 1928, some of them critical revisions, the remainder first publication of new materials.

The results of excavations at Kolomishchina discovered in 1934 near Khalep'e in Obukhov raion, Kiev oblast' form the introductory section. According to T. S. Passek, who summarizes the results obtained during 1934-1938 by the Tripolje Expedition, this area was thickly populated during the second and third millennia B.C., and the land was extensively cultivated and grazed. They also raised cattle, sheep, and swine, and hunted elk, deer, roe, and beaver. Valuable information was assembled on the character of the dwellings, and it was proved conclusively that the Tripolje platforms were remains of unbaked-brick dwellings. The outline of the ground plan of the settlement consisted of two concentric circles, the outer 200 m. in diameter with thirty-one dwellings, the inner 60 m. in diameter with eight buildings and a small plaza, serving either as a cattle enclosure or ceremonial grounds in the center. The largest houses averaged 140 sq. m.; medium 90 sq. m.; and the small 30 sq. m. The rectangular dwellings, divided by partitions, contained numerous ovens or stoves. Several oaken props, supporting the roof, were found.

Extensive inventories included flint implements (knives, scrapers, points, nuclei), stone querns, slate and gneiss hoes, bone and horn implements (perforators, wedges, hoes) and a quantity of sherds. Unpainted pottery predominated. In many cases it was possible to determine the functional rôle of various types of vessels in a Tripolje household. Other pottery objects included male and female figurines, undoubtedly of ritual significance, spindle whorls, miniature pots, and fragments of burned clay bearing finger impressions. From impressions in the baked clay used for plastering houses, wheat, barley, rye, and acorns have been identified. Many types of fauna were represented.

Reports by T. S. Passek, E. I. Krichevskii and N. L. Kordysh of the excavation of nine platforms and of chemico-technical analyses by D. A. Kul'skaia and N. D. Dubitskaia on pottery and build-

ing materials were prepared. Upon Platform I were nine fragmentary figurines and an accumulation of the following animal bones: *Bos taurus*, *Ovis aries*, *Sus scrofa domestica*, *Equus caballus*, *Alces alces*, *Cervus elaphus*, *Capreolus capreolus*, *Spalax podolicus*, and *Emys orbicularis*. In addition, many shells of *Unio tumidus* and *Unio pictorum* were found. The charcoal was mainly oak. Remains of grape-vine and of several cultivated plants were also excavated.

Upon Platform IV it was discovered that the ovens were constructed of wooden beams coated with well-baked clay and resting upon a special platform of large slabs of clay.

Platform XI contained a special room for drying, preparing and storing grain. Thirty-five vessels were found together with a stove of red ferruginous clay serving for painting vessels and possibly the walls since one of the outer walls of an oven was painted.

Platform XIII apparently housed four families under one roof since four ovens with four sets of cooking pots were found.

Platform XXIII yielded a large cup-shaped grain storage pit, 0.5 m. deep and 2.0 m. in diameter, lined with slabs of baked clay. Platform IX had three ovens, some of which may have been used for baking pottery. The temperature may have reached 1200° C. These ovens were washed with a red violet pigment and the walls of the house with yellow paint. Several fragmentary bases of vessels suggest that these were manufactured separately, the body of the vessel being attached late—this technique in both plain and painted pottery from Vladimirovka and Kolodistoe.

O. A. Kul'skaia demonstrated that local clays had been used invariably by the Kolomishchina potters. Ground shells were used to stabilize the clay and to lower the melting point. Two kinds of pottery were manufactured: a coarse, less porous, more resistant type; and a porous, thin, polished type decorated with specially treated ochre. These were fired at a temperature of 700°-900° C. Kul'skaia and Dubitskaia deduced that burnt clay, found extensively in association with the platforms and heretofore attributed to the effects of conflagrations, was actually prefabricated for building purposes.

The second section is devoted to the results of excavations at Gorodsk during 1936-1937 and at Belyi Kamen' during 1928.

"Chervona Gora" site at Gorodsk in Zhitomir



*oblast* is a typical Eneolithic settlement, with undoubted cultural connections with the Upper Tripolje verging on the Bronze Age (cf. Kirillovskaiâ Street site in Kiev excavated by Khvolko) on one side, and with such Upper Tripolje sites as Usatovo on the other.

The season of 1936 is described by V. P. Petrov. Two strata were identified: the upper, "Early Feudal"; and the lower, Upper Tripolje. This range was comparable to the stratigraphy of such sites as Borisovskoe *Gorodishche*, "Monastyrishche" near Romny, and Kiselevka Mountain near Kiev. Remains of clay hearth platforms, 1.0–1.5 m. in diameter, were the only traces of dwellings found. The settlement apparently consisted of clusters of small cells or chambers situated in several rows on a promontory of the mountain above the river. Animal remains included *Bos*, *Equus*, *Sus*, *Ovis* (or *Capra*) *Cervus elaphus* and *Canis*. Bones of *Equus* were particularly numerous. Flint inventories from Chervona Gora were very extensive and variegated, including scrapers of various types, perforators, arrowheads, and spear-heads. Of particular interest were the fragments of a large perforated hammer, two polished flint blades, and a stone quern.

"Rope" and "fir" ornamented pottery predominated, but pit and incised types occurred. A large spherical painted vessel, of typical late Upper Tripolje type (Usatovo or Belozerki) indicated a connection between the sites of the northern tributaries of the Middle Dnieper with those of the Black Sea area.

Excavations during 1937, described by E. Krichevskii, disclosed the remains of two types of dwellings, one in which only clay stoves had survived, the other of the semi-dugout type. The inventories of the two types of dwellings were similar, and included, in addition to the stone implements and pottery, a good portion decorated, several clay spindle-whorls and loom-weights. Bones of *Equus caballus* predominated, but of the domesticated animals *Bos taurus*, *Sus scrofa domestica*, and *Camellus* (one bone) and of wild animals, *Alces alces*, *Ursus arctos*, *Cervus elaphus*, *Sus scrofa ferus*, and *Castor fiber* were also represented.

The third section, also by Krichevskii, is devoted to the problems of dwelling construction in the light of recent researches. He describes the building types of Kolomishchina, and therefrom proposes a classification of Tripolje sites on the basis of their structural peculiarities.

The sites of the Middle Dnieper, including Kolomishchina, are characterized by complex and substantial construction of the platforms and in each case pottery fragments and burned clay stove plastering were found upon the surface of the platforms. This group of sites, all represented at Kolomishchina; contains three sub-groups within Type I:

a. With platforms formed only of clay slabs (cf. Zholudivka, Khalep'e, Kolodistoe).

b. With platforms of clay slabs with overlying layer of wood and clay (cf. Sushkovka, Kolodistoe, Popov-Gorod).

c. With platforms only of wood and clay (cf. Krutoborodintsi, Lukashi, Platform III at Staraia Buda in the Ukraine, Kozachintsi, Verkhnikivtsi, Beremiani and Gorodnitsiâ in Galicia).

The construction becomes progressively simpler toward the Southwest. Type II is characterized by platforms of burned clay (cf. Tomashivka, Petren, Bilche-Zlote, and Buchach). At these sites pots and sherds were found beneath a stratum of burned clay. Type III is characterized by earthen platforms. The pottery upon the platform was covered by burned clay debris and plastering from stoves and walls, possibly the result of a conflagration. In this group belong the following sites: some platforms at Petreni; Zelencha; Schipenitz in Bukowina (second site); Vasilkivtsi, Vignantsi, the majority of the "tumuli" at Bilche-Zlote, and probably only the lower horizons at Cucuteni.

Type IV, known only from fragments of clay stoves and hearths, is represented at Ralki, Evminka, Tomashivka, Zakhvativka, and Schipenitz (in Bukowina; Site I).

Type V is characterized by structures with partial or complete stone floors (platforms). In this southernmost group belong the sites of Usatovo and Garda. A transitional form is represented by Petreni.

According to Krichevskii the types of dwellings represent varying stages in both chronological and socio-economic aspects.

1. In the earliest Tripolje sites (cf. Borisovka) the platforms are missing and dwelling, hearth, and storage pits are present.

2. The classical Tripolje sites (cultures "A" and "B") are characterized by the development of the typical domestic structures represented by platforms.

3. The more recent sites, frequently peripheral, in the Soviet Ukraine such as Gorodsk, Ralki, Evminka, and Lukashi, belong to Type IV. The



settlements of this period are characterized by the degeneration and disappearance of the true Tripolje platforms which are replaced either by surface structures (Types III-IV) or by semi-dugout dwellings.

**Kazakh S.S.R.**—A. N. BERNSTAM (*Kratkie Soobscheniia* vi, pp. 34-42) reports on recent excavations by the IIMK jointly with the Scientific Committee of the Kirghiz Republic and the Kazakhstan Branch of the Academy of Sciences in Jetty-Su, west of Chinese Turkestan. The area roamed by ancient nomads and home of animal stylistic design, was not mentioned in the documents collected by Sir Aurel Stein and translated by H. Qeichelt (?). However, it is known that the main caravan route from the west to Chinese Turkestan crossed the Jetty-Su (Seven Rivers) and that consequently some important results might be expected here.

The earliest influences from the west were those from the Achaemenid Empire (sixth to fourth century B.C.). Bronze altars and lamps in the Hermitage Museum found in 1937 near Issyk-Kul, belong to this period.

In the following period (fourth to second century B.C.) for a short time there appeared in the art of the nomads of the northern Tien Shan foothills some elements of Greco-Bactrian art (Wusun burials described by M. Voevodskii and M. Griaznov (*Vestnik Drevnei Istorii*, 1938, No. 2 (3)). However, these did not affect permanently the art of the nomads, in which the ancient "animal style" soon came back into its own. The Greeks did not penetrate this area, notwithstanding W. Tarn's claims to the contrary, and Greek influence was felt only by the way of commercial relations. During the beginning of our era, new influences from closer at hand, replaced those of the more distant areas. A polished wheel-made ware, totally different from the pottery of the nomads, appears (cf. Kenkol and Berkkarin cemeteries) but it is still impossible to decide whether or not it came from Soghdiana or from the oases of eastern Turkestan. More significant, however, are the finds from the local *gorodishches*.

Soghdian inventories are found in the lowei strata of Taraz (Dzhambul) and Krasnast Rechka. The finds include, together with pottery and terracottas, a barbarian imitation of an eastern Roman solidus of the fourth or fifth century. While it is still impossible to date these objects, they belong to the period between the third to the fifth centuries. In addition to the

typical traits of the Soghdian culture, still retaining a strong influence of Greco-Bactrian traditions, these objects also show the influences of the eastern Turkestan style.

In Soghdian traditions are a figurine of Anahita (forming the handle of a pot) from Taraz, and an oinochoe of Central Asian type. A modeling mold for a masculine head bears a Grecian profile and a general resemblance to Gandharan art; the only known analogy to it are the heads of rulers on Greco-Bactrian coins.

The first agrarian settlements, for example Krasnaia Rechka, are isolated fortified houses of unbaked brick, two or three stories high, of long parallel apartments (1.5 x 2.0 x 8.0 m.) with flat roofs. These are dated prior to the seventh century. At Krasnaia Rechka, however, these were ruined and upon them had been constructed Zoroastrian tombs attributed to the seventh or eighth century. Bernshtam disagrees with the first century B.C. dating for comparable Soghdian finds from eastern Turkestan by Sir Aurel Stein, attributing them to the fifth or sixth century A.D. Bernshtam concludes that the colonization of Soghdiana did not begin prior to the period from the third to the fifth century. During this period Soghdian colonies were still isolated culturally and economically in the midst of the Jetty-Su nomads. From the seventh century the cultural influence of Soghdiana increased both in volume and in significance, in crafts as well as in fine arts. A Soghdian version of the favorite Sasanian decorative motif, a dotted circle filled with either a pictorial or an ornamental subject, is encountered in a series of sites, in Mongolia (Tola), Kirghizia (Ak Peshin), and Altai (Katanda). One of the examples combined the Sasanian dotted circle with a Chinese ornamental lotus in the center. The imitations of Sasanian platters (Saiano-Altai Expedition, near Yenisei) should perhaps be attributed to the Soghdian craftsmen living amidst the nomads.

Soghdian influences in the pottery of this period from Kazakhstan and Kirghizia have been described by Bernshtam (*Vestnik Drevnei Istorii* 4 (9), 1939).

A contributing factor may have been a second mass migration of the Soghdians, particularly from Bokhara, during the seventh century. To this period belongs the founding of the typically Mawerannahr towns with citadel, *shahristan* and *rabat*, in the valleys of the Chu and Talas rivers in the northern foothills of the Tien Shan.

This movement continued during the Arabian conquest of the Jetty-Su during the first half of the eighth century. To this period belongs the spread of Soghdian writing and its use for the local Turkish dialect. The oldest examples of Uigurian writing in Soghdian characters are the so-called Turgesh coins of the eighth century.

In the ninth century Soghdian culture begins to disappear, and in the Jetty-Su it becomes a component part of the culture of Turkish nomads, after the assimilation of Soghdians by the Turkish population. According to Muhammad of Kashgar, the Soghdians adopted the clothes and manners of the Turks, from Balasagun to Ispindjab the inhabitants spoke both Soghdian and Turkish and there were left no people who spoke only Soghdian.

Soghdian colonization had the two periods of development: (1) From the third to sixth century this did not result in assimilation of Soghdians by the local Turkish populations. Soghdians engaged in commercial relations with the Turks, but there was no organic intertwining of the Soghdian culture with that of the local nomads. (2) From the

end of the sixth century this was connected with the emigrations from Bukhara; at the same time it was a period of assimilation of Soghdians with the Turkish nomads, resulting in complete dissolution of Soghdian culture with that of the nomads. This process was completed by the end of the ninth century. Recent archaeological investigations revealed that the second wave of colonization was less "pure" than the first, because with the Soghdians in this colonization participated Christian Syrians (cf. A. IA. Borisov, "A Syrian inscription from Taraz," *Izvestiia* of Kazakhstan Branch of the Academy of Sciences now in press).

**Caspian Region.** — In *Short Communications*, v, pp. 63–69, A. P. KRUGLOV summarizes the results of the various expeditions in the western part of the Caspian region, Chechiha and Daghestan. He shows the close relationship of the finds with those of Transcaucasia and emphasizes the agricultural interests of the people of the Caspian region as opposed to the pastoral activities of the early population of Chechiha.

## BOOK REVIEWS

ZONENGLIEDERUNGEN DER VORCHRISTLICHEN  
EISENZEIT IN NORDEUROPA, by *Carl-Axel  
Moberg*. Pp. 246, figs. 31, maps 14, pls. 24.  
Lund, C. W. K. Gleerup, 1941. Kr. 12.

The author here treats the archaeological remains of Scandinavia and Northern Germany from the Late Bronze Age to Roman Imperial times. Exhaustive knowledge of the material and sound judgment enable him to draw a convincing picture of the settlements made in the various parts of the area and their interconnections. The study is of great importance not only for the specialist in North European archaeology, but also for the classical archaeologist, who will profit from his discussion of methodological problems. One of the most vexing problems, for instance, is whether a change in archaeological material is due to a change in population or to internal development or to foreign influence. The author is inclined to assume continuity of population, even if the changes in the artefacts are great. The transition from the geometric to the orientaling period in Greece is a good example of this fact. He regards as the most valid criteria for continuity of population consistent development of industrial types and continuous use of the same cemetery. He doubts, on the other hand, that the change in the type of tombs proves continuity. Another problem is the connection between the migrations of types and the migrations of peoples. The author shows convincingly that many types were transferred from the southern shores of the Baltic to Scandinavia, whereas the migrations of the Germanic tribes moved in the opposite direction. He does not deal with this problem in the present study, but the reviewer hopes he will do it elsewhere, because his methodological opinions are competent and stimulating.

VALENTIN MÜLLER

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DEUTSCHES ARCHÄOLOGISCHES INSTITUT, RÖ-  
MISCH-GERMANISCHE KOMMISSION, 28. Bericht  
der Römisch-Germanischen Kommission 1938  
by Arnim von Stroh. Pp. 179, figs. 22, pls. 30.  
Berlin Reichsverlagsamt 1940. RM. 10.

The volume contains two parts. The first section is a report on the activities of the Römisch-Germanische Kommission from April 1, 1938 to

March 31, 1940 by its director, Ernst Sprockhoff. Of interest are the lists of excavations and publications sponsored by the committee. The second part is a study by Armin Stroh on the "Roessen culture," which flourished in Southwestern Germany in neolithic times. It is a careful and exhaustive piece of work, based on a thorough knowledge of the material. Localization, typology and development of the pottery, implements, tombs, houses, origin and relationship to other cultures are discussed systematically. The result of the typological analysis can be gathered from the following table given by the author:

- A. Roessen culture of Central Germany.
- B. Roessen culture of Southwestern Germany.
  - 1. early phase:
    - a. subdivision Planig-Friedberg,
    - b. subdivision Rhine-Main,
    - c. subdivision Neckar,
    - d. intermediate group Lower Neckar.
  - 2. late phase or "Stichkeramik":
    - a. subdivision Wetterau,
    - b. subdivision Rheinhessen,
    - c. subdivision Württemberg,
    - d. subdivision Lower Alsace.
  - 3. mixed groups:
    - a. subgroup Schwieberdingen,
    - b. subgroup Bischheim.
- C. Roessen culture of Bavaria.
  - 1. early phase,
  - 2. late phase.

The origin of the Roessen style is a matter of dispute. It is, therefore, most opportune that another study on the same subject has been published at the same time, namely by Carl Engel in *Mannus* xxxii, 1940, pp. 56-83. Engel considers the Roessen style the last phase of the "Bandkeramik," whereas Stroh places Roessen in the "northern" context and assumes an immigration from Central Germany, although he does not deny some influence of the "Bandkeramik." The reason for such divergent opinions is that the analyses of the style of both authors are not faultless, and could be much improved by adopting the method especially developed by F. Matz. The reviewer sees in the Roessen style a most interesting example of the synthesis of the two styles. The shapes of the two vessels and some features of decoration, such as the covering of nearly the

whole ground by ornaments are characteristic of the "Bandkeramik." On the other hand, a "tectonic" arrangement of the ornaments is equally discernible. The best solution seems to be that immigrants of "northern" stock from Central Germany settled among "Bandkeramik" people, took over the pottery and modified the style according to their own taste.

VALENTIN MÜLLER

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HUMANISTIC STUDIES IN HONOR OF JOHN C. METCALF, University of Virginia Studies I, 1941. Issued by the Publications Committee, University of Virginia, Charlottesville, Virginia. \$3.00.

This volume which ushers in another university publication contains but one article which may be reviewed in an archaeological journal. It is by A. D. Fraser and is entitled "The Bronze Bull in Cleveland." The figurine is said to have been found in Lucania. From stylistic study and comparison of the bronze with other representations of the bull, the author reaches the conclusion that the figure was cast in the last quarter of the sixth century. Fraser's theory that it is a copy in miniature of a statue of a bull of cult significance is quite probable. In view of the appearance on coins of Lucanian Sybaris of the bull as one type and of Poseidon as the other one may assume that the bull at Sybaris was a theriomorphic Poseidon, but Fraser believes that the bull on the coins of Thourion symbolizes the river Crathis. In support of this theory he might have cited the taurine river god Achelous whose bull's head with human face may be intended on certain coins of Metapontum. Fraser's theory that the bull on the Sybaritic coins directs its head backward in allusion to the sharp turn which the river makes before reaching the supposed site of Sybaris is almost certainly wrong. Such subtlety is not to be expected in the period of these coins. The turning of the head is rather a matter of composition as on the coins of Lucanian Laüs in the late sixth century and again in the tondos of certain r.f. cylices of the same period. In the interpretation of Greek art it is normally a safe principle to prefer the simpler of two explanations.

The opinion of the author that the progenitor of the pawing bull is not to be sought outside Italy is open to question. It is likely that the type originated in games in honor of the taurine Poseidon, in which, as in Thessaly, the youth

faced the pawing angry bull. Something or some one must be imagined as the object of the bull's anger, just as the tyrants must be imagined as the object of the impending attack of the famous statues of the tyrannicides. The angry bull of a national religious game could easily have become the symbol of the festival and then have furnished a type to another cult. Thus the butting bull on the sepulchral monument of Dionysius in the Ceramicus is used in a punning yet sacred allusion to Dionysos conceived as a bull (cf. Collignon, *Les statues funéraires dans l'art grec*, pp. 236-8). In this life size statue of marble the tail is looped and attached to the flank just as in the Cleveland bronze. Such position offered greater protection against fracture than the free position in air which is a mark of the angry bull in Minoan painting and relief.

On page 8 the reference to the date of the "Theseion" should mention Dinsmoor's conclusion that the temple was built between the years 449-44 (*Hesperia* 1940, p. 47).

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CATALOGUE OF THE BRONZES IN THE ALLARD PIERSON MUSEUM AT AMSTERDAM, Part One, Allard Pierson Stichting, Archaeologisch-Historische Bijdragen, Deel VII, by Hendrika C. Van Gulik. Pp. xvi + 115, pls. XXXVI. N. V. Noord-Hollandsche Uitgevers-mij., Amsterdam, 1940. fr. 6.50.

The collection of the Archaeological Museum of the University of Amsterdam includes the former Scheurleer Collection at the Hague, the Collection of the Allard Pierson Stichting, and recent acquisitions. This catalogue describes about half of the bronze figures and the ornamental bronzes, excluding the Egyptian bronzes preceding the Ptolemaic period and all vases and utensils. Since most of the bronzes in the present catalogue have been published, it is to be regretted that all types of bronzes have not been included. The division is according to subject matter: A. Statuettes, I. Male Figures, a. not divinities, b. divinities; II. Female Figures, a. not divinities, b. divinities; III. Graeco-Egyptian Statuettes; IV. Group of Ornamental Statuettes from Egypt; V. Animals; VI. Parts of Statues and Statuettes. B. Reliefs and Other Ornamental Bronzes, I. Hammered Reliefs; II. Ornamental Attachments, etc. C. Mirrors. D. False and Suspect Bronzes. Not enough attention is paid to chron-

ology or development of types, though there is an interesting condensed historical survey (pp. 107-109) of Greek, South Italian, Etruscan and Italo-Etruscan, Graeco-Roman, Roman, Egyptian, Coptic, and Merovingian bronzes. There are good indices of finding-places and of collections, a general index, and tables of corresponding numbers. The thirty-six plates with 157 illustrations to scale are excellent.

Each object is carefully described, with measurements, state of preservation, technical details, history of the object, and bibliography collected in a separate paragraph, followed by a commentary. Especially interesting are: a manacled nude oriental boy (12) with hair-dress as described by Lucian, *Symposium* 18, and still employed by Mussulmen; a group of Achilles and Penthesilea with an unusual long garment (21), which recalls the Hellenistic Gaul with his wife, or better, the corner group of the pedagogue and wounded Niobid on the Niobid sarcophagi (dated p. 13 "not later than the second century," p. 108 "before the third century B.C."); a Dioskourous with a star above his head (27); an Aphrodite with bust-wrapper (*sic.!*) (47), inspired by the *kestos* of Homer, *Iliad* xiv, 214, perhaps a variation of Praxiteles' Pselioumene; an Aphrodite Anadyomene (48), perhaps influenced by Apelles' famous painting; an Athena with owl on her right hand (53) and unique overgirt peplos, inspired by Myron and Pheidias but made perhaps by a Roman eclectic artist; a winged goddess, perhaps Nemesis (55) with her right foot on a wheel, influenced possibly by a painting or relief in the Nemeseion at Alexandria; a quadruped with bird on its back (84); a bird on a stand (89) which is of the geometric period and reminds one so much of some Olynthian bronze birds that I should be inclined to call it Macedonian (cf. Robinson, *Olynthus* x, p. 116, nos. 400-402 and parallels cited in note 185); a very fine trained monkey (94) with a bowl into which earnings for the monkey's tricks could be collected, one of those kynokephaloi reported by Aelian, *De Nat. Anim.* vi, 10; an important third-century male head, the first bronze said to have come from Aphrodisias, a famous center of sculpture, perhaps Valerian, according to Snijder, but more likely only a portrait and to be dated later along with L'Orange, *Studien zur Geschichte der spätantiken Porträts*, 1933, figs. 80 f., 116 f., 161 f.; a relief of Eros (106) of the beginning of the fourth century B.C., earlier than the similar Praxitelean relief in New York, published by

Miss Richter (*Cat. of Bronzes*, no. 106), probably part of a hydria handle, whereas the Amsterdam relief belongs to a pendant; a mirror and cover (143) with female head resembling Syracusan coin types (disk like some at Olynthus, cf. *Olynthus* x, no. 516); mirror (145) with Dionysus and Ariadne; incised mirror (149), with a group perhaps portraying the Dioskouroi with Helen and her adopted parents, Tyndareus and Leda, but surely copying a judgment of Paris.

Despite certain infelicities in English grammar and style, this is a learned and scholarly and well-documented monograph, valuable to the student of Greek art in general and of ancient bronzes in particular.

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EXCAVATIONS AT OLYNTHUS, Part X, METAL AND MINOR MISCELLANEOUS FINDS, by David M. Robinson. Pp. xxvii + 593, 172 pls., 33 text illustrations. The Johns Hopkins Press, Baltimore, 1941. \$20.00.

Few excavations of Greek sites have yielded so many and such a variety of objects of everyday use as has Olynthus. It has contributed a wealth of material to our knowledge of city-planning, of the private life in a Greek city, of the high state of comfortable living enjoyed by the population of a provincial capital in the period preceding the Hellenization of the ancient world under Alexander and his successors.

In previously published volumes of the Olynthus series, especially in volume VIII, many of the miscellaneous objects have been discussed in connection with the architecture and furnishings of private houses and public buildings. A classified publication of all the metal objects and of a few articles of other materials is presented in volume X. The catalogue comprises 2683 items, which with very few exceptions are listed separately and minutely described together with their measurements, provenience, and other data. General discussions with bibliographical references precede the catalogue of each class of objects, and additional paragraphs are occasionally sandwiched in between the items in the catalogue or added at the end of a chapter. In a few instances, as in the chapter on horse-trappings, these discussions are lengthened into exhaustive treatises.

The descriptions in the catalogue are adequate and clear, though occasionally rather prolix, and the identifications of the various items are as a



rule convincing. The illustrations in the plates are excellent and plentiful. The catalogue number is given on the plates with each object, so that it is easy to refer from the illustrations to the descriptions in the text. It would have been desirable to have the scale indicated on all the plates, but this is difficult to do unless all the objects on each plate are photographed together. The drawings of Mr. Lefakis are excellent, and one can only regret that there are not more of them. Section drawings of some of the objects would have been particularly helpful.

The classification is, in the reviewer's opinion, too detailed and not always logical. Whole categories of objects, included in a final chapter, were apparently added as an afterthought. As a result, keys are separated from the metal trimmings on doors, and gems and beads of stone and paste are not included in the chapter on jewelry and personal adornments.

The first chapter on Statuettes and Reliefs comprises only 44 items, including insignificant fragments, but among them are some of exceptional interest. The statuette of a comic actor, in a good state of preservation, gives a vivid picture of one of the stock characters on the stage in the early fourth century. A series of miniature herms of lead, representing a male and a female deity, are interpreted as Priapos and Aphrodite, or as Hermes and Aphrodite. In the absence of specific attributes, it is hazardous to draw any conclusions about the cult represented by these figures. The interpretation would have been more convincing if the author had adhered to one identification; for it is obvious, despite minor differences, that the same pair of deities is represented in each case.

The two bronze reliefs with reclining figures likewise give rise to much speculation. The suggestion that they may have been used as trimming for a horse's equipment is plausible, but the object covered by the bronze decoration seems entirely too small to have been part of the protective armor.

An important part of the collection is made up of the implements of war. Arrow points and spearheads are remarkable no less for their astoundingly large number than for the variety of types represented. Likewise, more than two hundred sling bullets, many of them inscribed, are included in the catalogue, and another lot mentioned in a note on page 443 brings the total up to an impressive number. The collection of small arms from Olynthos will form an important chap-

ter in a general work on Greek weapons, which is one of the archaeological *desiderata* at the present time. One decorated rim of a large shield gives a sample of protective armor of the more elaborate kind.

Another important chapter deals with articles of household use. There is a fairly representative assortment of kitchen utensils, including several graters, ladles, strainers, meat-hooks, bronze bowls and dishes, and one very fine brazier in an excellent state of preservation. The bowl shown in plate XLIV (No. 575) looks like a miniature brazier, upside down.

The chapter on Tools and Implements is also exceedingly important. The iron objects are, as always, in poor condition, but the soil of Olynthos appears to be kind to bronzes. A large collection of netting needles and fish-hooks shows how a considerable number of Olynthians gained their livelihood. Weights of bronze and lead, most of them labeled, are also very numerous. They present the usual puzzles and anomalies which make Greek metrology such a difficult study.

It would have been possible to publish on fewer pages all the material contained in the book. Needless repetitions in the catalogue occupy a great deal of space. Although the chapters and subdivisions have titles, the name of each object is repeated after the inventory number in almost every case. For example, the words: "Bronze arrowhead. Same type as the preceding," are repeated 103 times, although each type is described in the heading. Many of the smaller objects, such as bronze nails and rings, would not require individual descriptions and their exact measurements are unimportant. Occasionally some objects have been grouped together without descriptions, and this method might have been employed more extensively in order to decrease the size of the book. In the case of small miscellaneous objects the text is far less important than the photographs.

The making of catalogues is at best a thankless job, and the reviewer, obliged to read at a few sittings a book that is intended only for reference, is likely to find his interest lagging before he reaches the last of nearly 600 pages of text. In the present case, however, the author's keen interest in the objects brought to light and interpreted by him makes this ponderous volume something more than an impersonal enumeration and description of the material. Occasionally the finder's enthusiasm has carried him too far, as when he

claims to detect Scopasian influence in a face of which nothing above the throat is preserved.

In some cases the description of a given category of objects would have been more intelligible if the author had employed greater accuracy and uniformity of terms. For example, in the catalogue of spearheads the socket in which the shaft was fastened is referred to as "hollow ferrule," or "hollow tang;" and, conversely, the tang in a different type of spearhead is called "solid ferrule," or "solid tang," or "solid, round shaft." Similarly the term "cotter pin" is wrongly used to denote the metal spike or staple by which ring handles were fastened to wooden objects.

The value of a book of this kind is, after all, determined chiefly by the quality of the material described, by the clarity and accuracy of the catalogue description, and by the adequacy of the illustrations. In these respects it leaves little to be desired. It fills an important place in the series of Olynthos publications, by bringing together in a single volume and identifying so far as possible all the numerous metal objects from the excavations. Even a hasty glance at the 172 plates will show the wealth and variety of this material and the important contribution that it will make toward our knowledge of the daily life and activities of a fourth-century B.C. urban population.

OSCAR BRONEER

PRINCETON, N. J.

CORPUS VASORUM ANTIQVORVM. Danemark, sous la direction de Chr. Blinkenberg; Copenhagen: Musée National (Collection des Antiquités Classiques), fascicule 6, par. K. Friis Johansen. Pp. 32, pls. 39. Munksgaard, Copenhagen.

In its contribution to this *Corpus* the National Museum of Copenhagen has set an example of orderly planning and steadily rapid execution. Inevitably in this methodical progress through one class of pottery after another, its fascicles are of uneven interest: here it is the turn of Italiote red-figure, which, to the credit of Danish taste and sense of proportion, is represented in the National Museum rather meagerly.

Of the nine or ten pieces which in one way or another are striking, only two have been published before: the well known early Apulian kalix krater, Orestes at Delphi, pl. 235, 1, and the likewise early column krater, silen and nymphs at a spring, pl. 236, 1, attributed by Trendall to his Tarporley Painter, to whom Johansen is inclined to assign also the hydria pl. 237, 1. As Miss Hope

Wickersham has detected, the amphora of Panathenaic shape, pl. 238, 2, which the text places in the "Lucanian" limbo, is certainly another work of the Tarporley Painter. New disclosures of some special interest: pl. 238, 1a, Perseus with the gorgon's head, on a "Lucanian" amphora of Panathenaic shape to the painter of which Johansen attributes also the lebes pl. 239, 3 and another vase; pl. 252, 1, Apulian column krater of distinctive, almost attractive style (three silen boys worshipping a rustic herm which stands in a penthouse); pl. 254, 2, grotesque Apulian bell krater (A, silen's head, B, fantastic bird); pls. 255-256, 260, two late Apulian vases with quite arresting examples of the naiskoi so instructive to students of the major art of South Italy. The fish plate, pl. 249, 3, is a fine specimen; another small vase showing lively relishable drawing is the Apulian mug pl. 265, 2. Oddities: "Lucanian" hydria of barbarous style, pl. 242, 2, with curiosities of costume and armor; plastic kantharos, pl. 270, 3, the modeling crudely vigorous, the painting engagingly puerile.

Many of the plates have a dinginess which cannot be altogether the fault of their Italiote subject-matter, and the right of plastic vases—even South Italian ones—to be exempt from "blocking-out" (however tenderly performed) has not been respected. But on the whole, the very high standard of illustration set in the previous Danish fascicles is fully maintained: the aspects chosen with a scholarly understanding of the needs of scholars, the engraving free of blur, the scale of reproduction generous.

The vase paintings are described with great care, and with discretion—barring a really curious example of over-description in the text to pl. 235, 1. In the same notice is there not, for once, a slip of observation? Unless I am grossly mistaken, the "rang de petites plantes" said to mark the line of the ground is a pattern on the dress of one of the Furies. Disappointing, it must be said, is a certain perfunctoriness in reporting dimensions. What is the inhibition which prevents excellent scholars, well aware of the importance of even slight variation in the main proportion of a shape, from recording diameters? To give this fascicle its due, it is far from being as negligent of this as some others. The editor can be acquitted of the illusion which seems to be cherished in Germany, that the proportions of a vase can be taken quite satisfactorily from a photograph; some, at least, of the pieces published

here, those across the mouth of which a tape could be laid, are fully measured. It is not to be thought that any museum contributing to this *Corpus* lacks an adequate set of calipers; but it may be that in some there is a scruple against using them on vases, in fear of damage to the paintings. In that case, it is surely still possible to measure diameter safely and with sufficient accuracy, with the aid of display blocks or a couple of well made trays or boxes!

H. R. W. SMITH

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THE DAILY LIFE OF THE GREEKS AND ROMANS, by Helen McClees, as illustrated in the Collections, The Metropolitan Museum of Art. With additions by C. Alexander. Pp. 143, figs. 162. New York, 1941. \$1.00.

This is the sixth edition of the lovely handbook, which before, in its fifth edition in 1933, had been re-edited by Christine Alexander. The useful small volume stands well a comparison with its model, the *Guide to the Exhibition illustrating Greek and Roman Life* of the British Museum Department of Greek and Roman Antiquities, and rightly has become just as popular.

There are only a few changes and additions in the new edition, which keeps the same arrangement in 13 chapters, with the same number of pages and figures. The changes in places for the single objects, which reflect the alert and progressive administration of the curator, Gisela Richter, are faithfully recorded. Some captions are corrected, such as fig. 2: "Youth perhaps praying" instead of "Praying youth (?)" in the earlier edition. I hope that in the next edition the "perhaps" will also be dropped. This gesture of raising the right hand is the Greek gesture of praying, adopted by the Romans for their everyday salutation, taken over by Mussolini as the "Fascist salute."

Other improvements are the replacing of a drawing by a photograph in fig. 21 and of a bad photograph by a good one for the Panathenaic vase, fig. 125. The weeping actor of middle comedy rightly replaces the forgery of an actor of new comedy in fig. 25. Christine Alexander has also done well to put the mime, fig. 26, after these comic actors, as fig. 26, instead of before, as in the earlier edition.

I should like to propose other improvements and corrections for the next edition, which surely will be soon in demand.

Ch. I, *Religion*, p. 4: The object carried by

boys behind the marriage car on fig. 1 is a plow, the symbol of fertility, not the standard of the ship of Dionysos, who sails under a vine on the well known bowl of Exekias.

Ch. II, *Drama*, introductory illustration: This plan of the theater of Segesta by Laloux is out of date and wrong. The auditorium ought to be a horseshoe form, not a half circle. The stage was the Hellenistic proscenium with a colonnaded front, later closed by the Romans, but not remodelled in the imitation of a farce stage, as drawn here. Cf. the researches of Bulle, *Untersuchungen an griechischen Theatern*, Bayr. Akad. d. Wiss. xxxiii, 1928, pp. 110-131, pls. 19-32. P. 18: The dress of the tragic actor in no respect corresponded with that worn in everyday life. It was opposed to it in more than one respect. P. 19: The satyric plays were given at the city Dionysia, not at the Panathenaia. The "actors in satyr's dress" (fig. 22) are singers of a dithyramb in the dress of the old papposilenus, who in the satyr play is their leader. Cf. Gisela Richter, *Red-fig. Vases in the Met. Mus.*, pp. 195 f., no. 155 and M. Bieber, *The History of the Greek and Roman Theater*, p. 7 f. P. 21: The seated man with the purse, fig. 20, is not a slave, but a citizen, father of a family. Cf. Bieber *loc. cit.* p. 91. P. 23: Tail-piece: This is not a theatrical, but a cult mask, dedicated in a sanctuary of Dionysos.

Ch. IV, *Occupation of Women*, p. 40: There were no "embroidered ornaments on fine garments" as a rule, for the embroideries would have prevented the good draping of such garments. Women like the one in fig. 43 embroider only small fillets and girdles on their embroidery frames. The threads of the warp are not "alternately long and short," but all equally long. They appear of different length because half of them were attached to a rod with slings by which they were drawn forward and backward to make room for the horizontal threads to pass through (cf. fig. 47).

Ch. VI, *Dress and Toilet*, p. 52: The Greek dress was never "curved on one side," as was the Roman. The "Doric chiton," the diagram of which is shown in fig. 65, is generally called the peplos, according to the description of the peplos of Athena as a heavy woolen garment. Fig. 67 shows two peploi and two chitons, the latter worn with a himation. P. 65: I do not believe, that the Roman stola had "a wide piece like a flounce sewed on at the bottom." The separate pieces which were sewed on were broad shoulder

straps, as shown on Roman monuments, representing two tunics worn one above the other, the upper one hanging from straps being the stola of the matron. P. 66: The toga in no way corresponded to the Greek himation and was not "arranged in the same general way." The himation is rectangular, has different colors, is arranged in the most diverse individual way. The toga is rounded, white with purple stripes and is worn in a uniform established arrangement.

Ch. XII, *Trades and Craft*, includes a wide variety of subjects; on p. 116 it might be noted that on the vase, fig. 145, the ships are painted in such a way that they seem to be floating on the liquid inside the crater.

Fig. 145, which belongs to p. 116, is on p. 120, whereas figs. 142-144, which belong to p. 118 f. are on p. 119. Such crossing of text and illustrations occurs frequently in the volume: Figs. 148-9 belong to the text on pp. 120-121, whereas fig. 147 belongs to the text on p. 121; figs. 151-152 belong to the text on p. 123, before the text to fig. 150; fig. 155 belongs to the text on p. 127, whereas, fig. 154 belongs to the text on p. 128. Some shifting of the illustrations would therefore make the little book still more readable.

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AN ECONOMIC SURVEY OF ANCIENT ROME, by Tenney Frank. Vol. V, Rome and Italy of the Empire. Pp. xiv + 445. General Index to Volumes I-V. Pp. iv + 140. Baltimore, The Johns Hopkins Press, 1940. \$5.75.

This volume completes a project which was for nearly a decade very dear to the heart of Professor Frank. The publication necessarily lagged far behind his original hopes and expectations, with the immensity of the plan and its essential difficulty. It could not be finished in his lifetime, and this final volume, published through the devotion of many of his pupils, after his tragically sudden death in Oxford in the spring of 1939, remains itself in part uncompleted. Nevertheless, the accomplishment is immense, and the *Economic Survey* will remain for years a monument to the industry and vision of one of the ablest and best-beloved of American scholars.

Now that we have the work as a whole, it is a little difficult to know how to characterize it. Professor Frank always carefully avoided use of the term "history" in its connection. It may be suspected that he distrusted economic history,

at least in antiquity. Nevertheless, to adapt an expression coined by him on one occasion, the work is, in its entirety, neither wholly economic nor merely a survey. The first volume remains apart. As the work of a lifetime student of the Roman Republic, and of an author of numerous studies dealing with its economic problems, that volume has a special authority and a special aspect. Professor Frank's views of the economic history of the Republic are well known, and in the first volume of the *Survey* he proceeded to document them with the ancient texts. For the Republic, that was both feasible and useful. With the second and later volumes, however, there was reached the enormously more complicated field of the Empire, that congeries of areas and administrations, each with its own background, interests, and problems, which nevertheless all formed parts of one interrelated and interdependent whole. The *Survey* called now both for special competence in these various fields and for a single co-ordinating point of view to give them a meaning. The aims of the project could no longer be satisfied by an accumulation of testimonia to support previously expressed theories. Aside from the fact that the Empire had never been Professor Frank's special interest, the evidence which it offers is of a sort which does not lend itself to testimonia. The literary sources become few and often second-hand, while the archaeological material, including therein inscriptions and papyri, is voluminous, technical, frequently obscure. For many of the parts of the Empire, likewise, the advent of Rome made no fundamental difference in their way of life. Involving merely a change of master, their incorporation into the Empire constituted no economic milestone, and, in their cases, to distinguish pre-imperial from imperial would be awkward, useless, and misleading. Their previous history must be brought into consideration. In order to meet these many difficulties and to expedite publication, Professor Frank called upon nine collaborators, four each contributing articles to volumes three and four, while Professor A. C. Johnson occupied all of the second volume with Egypt. These nine, who together covered the bulk of the Empire except Italy, were in no position to discuss the problems of fundamental importance, the nature of the material well-being of the Empire and the causes of its "decline." In nine differing ways, as was inevitable, they presented their surveys of the provinces allotted to them. It was to remain for



the last volume to present the synthesis, to bring together this bountifully assembled material into one picture. The result would have been not a source book, not even a handbook, but a history of the imperial economy, as extensive and as accurate as the materials permitted. This culmination, so far as it lay in Professor Frank's intentions to accomplish it, was prevented by his premature death. And yet in the present volume, a *lanx satura* of material, only in part designed so to be used, the account of which is dutifully presented in the Preface by the compilers, Evelyn Holst Clift and Helen Jefferson Loane, there is enough to indicate the general lines of his conclusions.

These come principally from lectures delivered at Oxford in his last year, which furnish not only a separate Epilogue (pp. 296-304) but also sections of individual chapters. They supplement and enliven the more factual material of the *Survey*. The most striking characteristic of these is their concentration on Rome. For Professor Frank, the Roman Empire was definitely Rome's Empire. Its strength, according to him, lay in the *rusticorum mascula militum proles* of the ancient times. His point of view is essentially that of the Augustan writers, who never dreamed of an empire strong by virtue of an idea, strengthened, maintained, and renewed by peoples whose names to Horace would have been anathema, and which could find its cohesive strength in devotion to an imperial cult, as Professor Ferrero would understand, whether or not its "deities proved to be tyrants" (p. 296). Consequently, the problem of the decline and fall is for him an Italian problem. The Empire fell because of changes in Italy, the new population of foreign origin (p. 89), the failure of the yeomanry in the face of the large estates (p. 304) and of small industry in the face of servile and provincial competition (p. 29), the adverse balance of trade (p. 281). The provinces were strengthened at Italy's cost, and how could they care greatly for Roman civilization (p. 296)? Symbols of the decline are equally the Spanish jars of Monte Testaccio and the Greek Meditations of Marcus Aurelius. Septimius only added the *coup de grâce*, when his extension of the *res privata* absorbed most of the good arable land throughout the Empire. Absolutism had suppressed individual initiative, and while "absolutism that offers no hope of individualism to its citizens cannot survive very long in a state that has once experienced self-determination" (p. 296),

the Empire of the Third Century, preserved "for the final dry rot" (p. 304) of a thousand years by Diocletian and his totalitarian government, was no longer such a state.

Of course there is truth in this, however unpalatable the fundamental conception may be in many ways to Hellenists or Byzantinists. Whether or not it is necessary to follow the view of Gibbon and make Septimius the chief author of the decline, whether or not the imperial estates and the colonate are principally due to him, whether or not the loss of monetary metals from the Empire was creating an impossible fiscal situation, the phenomena of the decline are correctly portrayed. I doubt very much that the crown became more attractive to ambitious generals after Septimius, because of the *res privata* (pp. 85, 301). The crown was, following this, in constantly increasing financial embarrassment, and I doubt the emphasis on Septimius' sins, who was, as Mason Hammond now reminds us, only a Roman bureaucrat. But Professor Frank himself has other thoughts. The failure of Rome to last forever was due, if he will not admit Rostovtzeff's municipal bourgeoisie, taxed out of existence, at any rate to the landed gentry, who short-sightedly allowed the elimination of the free yeomanry and the imposition of a paternalistic aristocracy. In emphasizing the complaisant security, the apathy, of the Antonine period, I suspect that he is nearer to the true pathology, not of Rome or Italy only, but of the Empire. "If we knew the real meaning of the Antonine period, perhaps we should find a formula of some value for our own future" (p. 298).

On the constructive side, it is less easy to understand him. He repeatedly expresses regret that nothing was done to encourage the small farmer and the small artisan, and yet he argues against an exaggerated notion of the *latifundia* in Italy in the first century (pp. 168-175), and denies that anything like large scale manufacturing existed (pp. 216-217). He expresses regret that the limited liability corporation was not developed to encourage production and to serve as an encouragement to investment (p. 29). He deplores the diversion of government funds to public works and public welfare and accuses the government of "spending its funds without regard to the future" (p. 76), and yet he seems to feel that more should have been spent on roads, canals, and irrigation. These attitudes are not necessarily inconsistent. They do, however, indicate well the complexity of the problem, and warn against the acceptance



of any simple solution. I cannot also quite escape the feeling that these views could as well have been formulated if the three middle volumes of the *Economic Survey* had not been written. I expect that this last volume of Professor Frank will be provocative of much discussion, and that the "provincial" volumes will be drawn upon both to support and to oppose his views herein expressed.

As would be expected, the factual material presented in the volume is uneven, both in plan and in scope. The book is unfinished, and some topics come very short. Chapters VI and VII are excellent, dealing with agriculture and industry (this including a section on Arretine ware by Howard Comfort), but the vitally important question of coinage from Augustus to Gallienus is covered in three pages. The descriptions of the economic policies of individual emperors in the first three chapters vary from the complete to the sketchy, although they contain enough to raise doubts as to the subsequent denial (p. 295) that these had any commercial policy at all. The accounts of Rome, Ostia, and Pompeii in Chapter VIII were left incomplete, but are valuable even as they are. Chapter V is a topographical description of Italy, based largely on Strabo and Pliny, which might well have served as an introduction to the volume. Chapter IV, on the finances of the municipalities, seems to contain little that is new, and it too is unfinished, but it nevertheless constitutes a useful and necessary part of the picture. All in all, while the posthumous publication of an unfinished book is always hazardous, this is much more than a *testimonium pietatis*. While there is much both large and small which would have been different had the master himself seen the publication through, we are richer with it than without it, and gratitude is due both to Mrs. Frank, who authorized the edition, and to the many of Professor Frank's pupils who had a share in it.

As an appendix of 116 pages is included the *Edictum de Pretiis* of Diocletian. As the second century has come a little short in the volume (it is omitted entirely in the summary at the end of the Epilogue), and the third century even shorter, this text stands as a reminder of the goal the study was intended to reach. The publication is a foretaste of the dissertation of Miss Elsa Rose Graser, prepared under Professor Frank's direction. It is welcome to have American attention brought to this highly interesting document, and convenient to have a composite text and translation made readily available. All known

fragments are included except two very recent ones, one found in Aphrodisias and dealing with costs of water and land transportation,<sup>1</sup> and the other from Italy, the first ever found in the West (oddly enough the Greek text), a passage dealing with the prices of wild animals,<sup>2</sup> presumably for the circus. Both serve to emphasize the ambitious nature of the tariff of Diocletian, an undertaking to provide a ceiling for all prices in the Empire, not merely for the soldiers and not merely for the East. It is a curious document, nevertheless, for while it contains the prices of basic commodities, especially food, most of the articles listed are such as were entirely out of the reach of any of the persons whose wages are included, even of lawyers at a thousand denarii a case. Most of the items are luxury items, witness the many varieties of clothing and jewelry, and, if you wish, the prescribed fees for private tutors elementary and advanced. This is a phenomenon which still remains to be explained, and which seems inconsistent with the principles announced in the vigorous, if turgid introduction, an egregious piece of rhetoric which Miss Graser has translated heroically. Her edition with full commentary will be eagerly awaited. There are many problems here still unsolved.

There remains to mention one thing, that indispensable labor of love which never gets its due share of recognition, the Index. Each section of the *Survey* has its own index, but they vary so in scope and nature that many reviewers have urged a composite index for the five volumes. This now has been prepared by Professors T. R. S. Broughton and Lily Ross Taylor, with the help of numerous assistants. It does not repeat the separate indices, but supplements them, giving in addition to a subject analysis, the utility of which is apparent only with repeated use, a list of texts quoted or discussed. The whole occupies 134 closely printed pages. Undertaken as a tribute to Professor Frank, it is hardly more self-sacrificing than appropriate to its purpose. Nothing could add more to the usefulness of the *Survey*, the great last work of one of our greatest American scholars.

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ARTILLERY SECTION, THIRD ARMY,  
LOUISIANA, 1941

<sup>1</sup> G. Jacopi, *MonAnt.* xxxviii, 1939, pp. 130-152.

<sup>2</sup> M. Guarducci, *Rend. Pont. Acc. Rom. Arch.* xvi, 1940, pp. 11-24. Both fragments are discussed by Miss Graser in the *TAPA.* for 1941, pp. 137-174.

COINAGE AND CURRENCY IN ROMAN BRITAIN, by C. H. V. Sutherland, pp. vii + 184, 14 pls., Oxford University Press, New York, 1937. \$3.50.

This excellent study is a striking illustration of the importance of numismatic evidence in the interpretation of historical problems. The first eight chapters present a fully documented picture of the coinage current in Britain down to the end of the Valentinian and Theodosian dynasties. Each chapter is divided into two parts: I—the imperial issues, II—the local copies and imitations. Chapter IX describes the coinage of the sub-Roman and Anglo-Saxon periods, while in two appendices the problems connected with the *minimi* and the local copies of those coins are thoroughly discussed. Appendix III gives a useful list of hoards with references. Fourteen plates illustrate the various types of the local copies of imperial issues.

As is inevitable in a work where so much on so many different phases of Roman activity in Britain is compressed into a comparatively few pages, the reader will find some places where the opinions of the author will be questioned. The most noticeable of these perhaps is the beginning of a chronological period with Commodus, rather than with Septimius Severus (ch. IV). The points on which one may differ from the author, as in the example just given, are minor and unimportant. The book is of permanent value both to those interested in the coinage of the Roman Empire and to those interested in the study of British archaeology. There should be more like it.

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PISCICULI. STUDIEN ZUR RELIGION UND KULTUR DES ALTERTUMS. Franz Joseph Dölger zum sechzigsten Geburtstage dargeboten von Freunden, Verehrern und Schülern. (Antike und Christentum, Ergänzungsband I). Edited by Theodor Klauser and Adolph Rucker. Pp. 350, pls. 8 and a photograph of Dölger. Verlag Aschendorff, Münster in Westfalen, 1939. RM. 16.75.

The "little fish" of this volume are dedicated to the scholar whose name is associated with studies (see the bibliography, pp. 334 ff., for their amazing number) of the Christian fish symbol. Since many of the papers deal with syncretism in ancient religion, the volume is fittingly issued as a supplement to *Antike und Christentum*, the title of Professor Dölger's own collected papers.

The contributors are an international group of scholars who early in 1939 could still appear together. Germany—that is the Germany of 1939—with names like Clemen, Pfister, and Weinreich, accounts for nineteen of the contributors; America is represented by Nock; Belgium by Cumont; Bulgaria by Kazarow; France by Festugière; Holland by van Beek, Bolkestein and Waszink; Hungary by Alföldi; Norway by Eitrem, and Switzerland by Styger. As is true of every *Festschrift*, many of the papers open with apologies for the slight contribution offered, and read like space-fillers. But though few of the papers are significant, they are, in general, free from the propaganda which characterizes so much recent German "scholarly" work.

Special mention may be made of several studies of interest to archaeologists. Alföldi, in opposition to Grégoire and other recent writers, shows that coins provide strong reasons for accepting the tradition that Constantine gave official sanction to Christianity from the time of the Battle of the Milvian Bridge in 312. From coins it is clear that the monogram of Christ was in use as early as 314. The evolution of the *labarum* of Constantine and the origin of Eusebius' legend of Constantine's vision of the cross are discussed in this interesting article. Curtius provides notes on the interpretation of an important sarcophagus found in the necropolis of the Via Portuense. Kirsch deals with the origin and purpose of the transept in Christian basilicas of Rome, and Quasten considers the image of the Good Shepherd in early Christian baptisteries. Styger discusses the origin of the catacomb in the light of such recent discoveries as the pre-Christian catacombs of Antium. Students of the Roman empire will agree with him that there is need of a full investigation of pagan burials and of the effect of cremation and inhumation on the types of cemeteries.

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THE CODEX HUYGENS AND LEONARDO DA VINCI'S ART THEORY, The Pierpont Morgan Library, Codex M.A. 1139, by Erwin Panofsky. Vol. 13 of Studies of the Warburg Institute, edited by F. Saxl. London, 1940. 138 pp., 117 pls. L.1.10.

This treatise on the drawing of the human figure, recently acquired for the Pierpont Morgan Library, is named after Constantine Huygens, Secretary to King William III, of England, who bought it in London in 1690, thinking it was a

manuscript by Leonardo. The anonymous author was an artist and able draughtsman at Milan during the second half of the sixteenth century, who had access to Leonardo's manuscripts in the Melzi Bequest, possibly Ambrogio Figino or Aurelio Luini. The arrangement of the 128 loose sheets is tentative and incomplete. Of the fourteen books that were planned, only five were included, and these consist mainly of batches of illustrations with explanatory notes. There are relatively few pages of written text.

Book I is composed of seven folios, illustrating the construction of the human figure with special reference to points where movements take place. Book II has twenty-one folios describing these movements, which are conceived as gyrations around these points. The ten folios of Book III deal with parallel projection. Given the profile view of a figure, its front and rear elevations are deduced. Book IV contains forty-eight folios on proportion, thirty-four of which reproduce drawings from the human figure and the horse by Leonardo. These copies and tracings were inserted, such as they were, among the sheets composed by the author; they are of special interest to students of Leonardo, since some of the originals are no longer extant. Book V, consisting of forty-two folios on perspective, is the most complete and original part. It includes a systematic survey of the foreshortened aspects which the human figure in various poses may display, when seen at various distances, from above, on a level and from below.

In the present edition Panofsky gives a lucid summary of the text on each folio. Verbatim quotations are provided only occasionally. The introduction deals with the history of the manuscript, its watermarks and pagination. At the end of the book the question of authorship is investigated and we are given expositions of the science of perspective, of the developments of canons of proportions, of the theory of human movement. Hence this book as edited by Panofsky contains not only a clear presentation of the methods advocated by a Renaissance artist for drawing figures, but also of the ancient sources from which these methods sprang and of their change and development at different periods. Our attention is also drawn to their connection with certain modern techniques. The following list of names and subjects involved in Panofsky's investigations may convey an idea of their scope: Assyrian and Egyptian systems of proportion,

Polyclitus, Vitruvius, Euclid, Byzantine haloes, Villard de Honnecourt, Alberti, Piero della Francesca, Leonardo, Gauricus, Lomazzo and Dürer, curvilinear perspective, and multiframe photographs.

In this review we should like to elaborate further upon the influence of classical traditions on the art theories of the Renaissance as revealed in our codex. Two writers of antiquity loom large in this respect, the Roman architect Vitruvius, and the Greek geometrician Euclid. Vitruvius contributed greatly to the studies on proportion; Euclid supplied the foundation to the science of perspective. Their influence on the compiler of our codex was as fundamental as that of Leonardo, who though first and foremost an ardent student of nature, himself quoted Vitruvius and Euclid in his studies on proportion and perspective.

Leonardo's well-known drawing in Venice<sup>1</sup> of the human figure, inscribed in a square and a circle, illustrating the Vitruvian canon of proportion, was probably made about 1490, to judge by its style and the formal character of the handwriting. It was made at a time when he was associated with Francesco di Giorgio in architectural schemes, and it was later reproduced in Fra Giovanni Giocondo's edition of Vitruvius. It is closely related to a number of drawings in our codex which illustrate the proportions and movements of the human figure. Panofsky finds the likeness so striking that he suggests that our author's whole theory of movement may be derived from "Leonardo's lost or more probably unwritten *Libro del Moto Actionale*." That Leonardo had actually completed a treatise on this subject is confirmed by Fra Luca Pacioli in the preface to his book *De Divina Proportione*, written in 1498. Speaking of Leonardo, he says: "Havendo già con tutta diligentia al degno libro de pictura e movimenti humani posto fine." Like many writings of Leonardo, this book is no longer extant, and the question arises whether the writer of our codex had recourse to it, and whether his exposition of the same subject is directly derived therefrom.

Leonardo was a personal friend of the Euclidian scholar Pacioli, and designed the illustrations for his book on the divine proportion. His mind must, therefore, have been working on regular polygons. And this leads us to question Panofsky's

<sup>1</sup> See Plate XVIII in J. P. Richter, *The Literary Works of Leonardo da Vinci*.

statement (p. 122) that the drawing on folio 7 of our codex, showing the human figure inscribed in circles and regular polygons is directly connected with the cross-section of Milan cathedral in Cesariano's edition of Vitruvius, published at Como in 1521. May it not be derived from a drawing made by Leonardo when he was under Pacioli's influence? It is certainly closely related to Leonardo's drawing in Venice, which is datable about 1490.

Another conception of Vitruvius is reflected in our treatise, namely the spherical field of vision, in the centre of which the eye is situated.<sup>2</sup> Our author adheres to it throughout the section on perspective, where all his illustrations display circles or arcs drawn from the point of sight as centre. Panofsky contrasts this with the Brunelleschian procedure, where objects are seen as through the flat surface of a plane of glass, placed at a certain distance vertically in front of the eye; and he suggests that our author, in reverting to classical ideas, was unconsciously heading for the curvilinear perspective as it developed in modern times (p. 99). Our author was not unique in this respect as Panofsky assumes. Leonardo, in contrasting the two procedures, gave preference to the arc, since it is everywhere equidistant from the eye.<sup>3</sup> Also Lomazzo takes the spherical field for granted: "Occhio e detto centro perchè a lui concorrono tutte le linee delle base e circonferenze degli oggetti non altrimenti che quelle dal circolo al punto."<sup>4</sup> This description shows how the Euclidian pyramid of sight, with its visual rays diverging from a point in the eye towards the circumference, forms part of the Vitruvian sphere of vision. Although the spherical field of vision is not mentioned in Euclid's *Optics*, it is implied; and in the prologue to Theon's version the globular shape of the eyeball is considered sufficient proof for its existence and for the emission of visual rays, because, it is argued, the shape of the eye would be concave were it but a receptacle of impressions from outside.

It was to the works of Euclid that the student of perspective most frequently referred. From the *Elements* he quoted the axioms, and from the *Optics* he adopted the pyramid of vision. The angles at the apex of the pyramid, formed by the divergence of the rays, varied in size according

to the magnitude and distance of the objects of sight at the base. These visual angles are called "angoli naturali" in our codex, to distinguish them from purely mathematical angles of geometry. In order to see things as they are, a visual angle should not be greater than a right angle, a statement that occurs in Witelo, but not in Euclid. Neither should an object of sight be too small, a reference to the "minimum visibile," described in Proposition III of Euclid's *Optics*, and quoted in Lomazzo's *Trattato* (v, 6). Therefore, not all geometrical angles conform to optical requirements; and only those angles that do conform come under consideration in a treatise on perspective.

Here again, our author is not unique among his contemporaries in his adherence to Euclid, as Panofsky assumes. The following quotation from Lomazzo's *Trattato* (v, 8) bears out the fact that he, too, was aware of the part played by the visual angles: "Nelle distanze corte et obtuse le cose pajono traboccare adosso . . . per contro le troppo lunghe ed acute al viso non danno forze." Lomazzo, who wrote this part of the *Trattato* during his youth, at about the time when our codex was written, had access to treatises on perspective by Foppa, Zenale and Bramantino, which are no longer extant; and the possibility suggests itself that the Milanese school, in general, may have had a tendency to adhere more closely to the classical tradition than Brunelleschi and his followers. For, as Panofsky points out (p. 104), this school seems also to have pursued an independent course in the solution of other geometrical problems, such as that of parallel projection as applied to the human figure.

The statement on the requisite size of visual angles given above is a paraphrase of the text at the end of folio 87v and the beginning of folio 92r.<sup>5</sup> The intervening folios (88-91) were evidently inserted as an afterthought, for they differ in size and quality from the rest. Three of them bear illustrations of cast shadows, and recall a statement in the prologue of Euclid's *Optics* that the direction of cast shadows is evidence of the

<sup>5</sup> Two identical little marks at the end of one page and at the beginning of the other serve to indicate that the text is consecutive. This device was also used by Leonardo for the same purpose. Since the text on 87v ends abruptly, and begins abruptly in the middle of a sentence on 92r, Panofsky assumed that several pages were missing.

<sup>2</sup> *De Architectura* i, 2, 2; vii, Preface.

<sup>3</sup> MS. A, 38r written at Milan about 1492. See Richter, *op. cit.* i, p. 152.

<sup>4</sup> *Trattato della Pittura*, Book V.



straightness of rays of light. "Il vedere si fa per linea dritta" is a sentence on folio 87v that our author may have wanted to illustrate. The same page tells of the resemblance between rays of light and visual rays; and he may have thought the drawings on the four folios suitable illustrations. They take the place of the chapter in Lomazzo's *Trattato* entitled "Sciografia," i.e., "Perspective of Light and Shade."<sup>6</sup> The background to these geometrical propositions was Plato's metaphysical theory of vision; and the writer was fully aware of this, for in his introduction to the book on perspective he cites Plato's comparison of the eye to a small sun, aglow with an internal fire, and emitting visual rays akin to the sun. These are drawn "even unto the soul bringing about the sensation which we call seeing" (*Timaeus* 45). Lomazzo, with whom our author has much in common, but who, as Panofsky points out, is more of a philosopher, says in his *Trattato*: "Plato thinks [vision] is caused from the brightness which proceeds from the eye, whose light passing through the air meets with that which is reflected from the bodies. Now the light with which the air is enlightened diffuses and disperses itself into the virtue of the sight."

In Panofsky's stimulating dissertations on general subjects of art-theory which, as stated above, are incorporated in this edition, a number of intricate subjects are presented in a few succinct and readable paragraphs. In preparing these his mind must have been torn between two considerations. On the one hand was the temptation to enter more fully into subjects that fascinated him and that might fill many pages, and on the other was his obligation as an editor to keep within a certain compass.

In the account of the canons of proportions (pp. 106 ff.) "the mechanical system" prevalent in Egypt is contrasted with "the aesthetic formula of Polyclitus." One might also mention the schemes of proportion that have been found embodied in the archaic kouros and which may be said to form a transitional stage. As a matter of fact, the Egyptian system, which consisted of a network of squares, is a device used by artists throughout the ages, in order to facilitate transfers with or without enlargement, and can hardly be called a system of proportion.

Proceeding to the compositions of the Middle Ages, Panofsky cites the tendency to determine both measurements and contours by geometrical

<sup>6</sup> Compare Panofsky's analysis, p. 101, note.

figures "à la Villard de Honnecourt." As illustrations of Byzantine and Byzantinizing art, he gives three small reproductions of round heads encircled concentrically by nimbi from a thirteenth-century German manuscript and two Italo-Byzantine paintings (figs. 92-94). If more space and more representative illustrations had been available, we might have been shown that nimbi and aureoles were but parts of geometric designs embracing compositions as a whole.

Let us demonstrate this briefly by recalling the simple design on a relief representing the Virgin and Child, which was brought from Byzantium and given a place of honour on a pillar in St. Mark's at Venice. Here, as in the illustrations given by Panofsky, nimbi and heads form concentric circles. Furthermore, the large nimbus of the Virgin and the smaller one of the Child are in definite proportional relationship and touch tangentially. The large nimbus is drawn from a centre situated in the pupil of an eye that is placed on the vertical axis of the relief and dominates the whole composition.

In Christian Iconography<sup>7</sup> the nimbus stands for a cloud of light, and adorns the heads of persons of divine or saintly nature like rays of light emanating from a centre. The conception is similar to Plato's of the visual rays that emanate from a fire within the eye; and the nimbus, though of restricted compass, may be said to correspond to the ancient spherical field of vision.

Just as the eye was conceived as a microcosm of the sun, the human body was regarded as a microcosm of the universe. The drawing on folio 10 of our codex showing the human figure within four concentric circles, marked with the names of the elements, recalls Plato's universe, where the four elements are arranged in concentric layers within an all-inclusive and rotating sphere. As in our drawing, earth occupied the centre, surrounding it was water, then came air and fire. (*Timaeus* 32-3).<sup>8</sup>

Thus the circles which appear again and again in the illustrations of our Renaissance Codex, be it to convey the spherical shape of the field of vision, the proportions of the human figure, or gyratory motions, reflect ancient Greek conceptions.

Panofsky has given us much more than an edi-

<sup>7</sup> A. N. Didron, *Christian Iconography* i, 1.

<sup>8</sup> Panofsky, in describing this illustration, reverses the positions given by Plato and our author to air and water (p. 23).



tion of a newly discovered codex. His stimulating commentaries and excursions constitute a valuable contribution to the studies of the methods employed by the painters of the Renaissance, and will be welcomed by students. The book is well and copiously illustrated with half-tone plates. Its production in England at this time is an encouraging sign of British determination to keep artistic interests alive.

IRMA RICHTER

#### NEW YORK CITY

BY THEIR WORKS, by *Phelps Clawson*. Pp. xxi + 229, 107 illustrations. Buffalo Society of Natural Sciences, New York, 1941. \$4.00.

Primarily designed as a handbook for the archaeological and ethnological collections of the Buffalo Museum of Science, *By Their Works* also attempts to describe the "history and culture of the various peoples represented" in the collections. Since these last embrace widely diverse periods and cultures, drawn from every continent in the world, it is small wonder that both author and reader seem somewhat confused during the ambitious and sometimes arduous progress through the various chapters.

A more carefully planned construction and arrangement of the chapters themselves, however, would have helped the reader to orient himself and to arrive at some evaluation of the relative importance of group or period. But three chapters on the Stone Age in Europe are followed by one (of two and a half pages) on the "Beginning of the Metal Age" in "such parts of the world as Chaldea, Mesopotamia and Egypt;" seven pages are given to prehistoric Greece and the Aegean and forty-two to ethnology of the Pacific Islands; archaeology and ethnology of the Americas are combined in another chapter, and chapters on the Luristan, Ordos and Scythian bronzes and the Syro-Hittite collections come at the end of the book, separated from those more nearly related by the chapters on Oceania, America and Africa. The chapters themselves vary as widely in clarity as in continuity; that on the Americas begins the section on "The Civilization of the Maya" with notes on the "Archaic Period of Mexico," returning to it, properly, under Mexico, while under "South America in General" are described only the Chibchas of Colombia.

Doubtless these inconsistencies will prove less disturbing to those few who may be privileged to use the book as a gallery guide in the midst of the

collections it is designed to explain, but as such both its price and bulk make its practical value somewhat dubious. To readers not so assisted they are bound to prove confusing.

The amateur anthropologist, or the teacher in search of an adequate introductory survey of the subject, will be disappointed to find the purely factual and non-interpretive text drawn largely from the most generally known, easily accessible, and often unrevised sources, to the exclusion of more recent and extremely important publications of significant discoveries, especially in the archaeological field (Dr. Absolon's in Moravia or Professor Wace's at Mycenae, for example). Furthermore, he will be repeatedly irritated by the kind of hasty or careless composition which reports bone tools and weapons first used in the Mousterian Period (p. 7); the Al 'Ubaid figurines from Ur as demons (p. 45); the Middle Minoan frescoes as stenciled (p. 74); that "these Mycenaean lords belonged to the period of which Homer wrote" (p. 75); which dates the Badarian Period in Egypt at 8000 B.C. (p. 35) or describes the spiral decoration on a prehistoric Egyptian pot as representing "fossil protozoan shells found in nummulitic limestone" (p. 34), the Sumerian ziggurat as a sort of foundation for the temple (p. 46), the African as "primarily an agriculturist" (p. 176), or the justly famous Bakuba cups (which were for drinking) as "used for holding a special kind of powder." It is perhaps mischievous even to mention the ultimate in slips of the pen: "In the Old Stone Age Negroid skeletons were found at Menton in southern France." Who knows? Perhaps they were, and anthropological excavation is a far older science than we thought!

Considerable indulgence, and more credit than we here allow should be yielded to Mr. Clawson for his courage in attempting the yet unattained production of the perfect combination of museum guidebook and lucid introduction to anthropology. If he has failed, he is one of a large and frequently august company. But the obvious labor that has gone into the book, and the quality of its plates (which well demonstrate the choice collections in the Buffalo Museum) make it regrettable that the time limit on completion of the manuscript, for which he apologizes in his introduction, did not allow a more balanced plan of content and a more easily assimilated text. It is sincerely to be hoped that a second edition may prove to have undergone a careful synthesis of its present mass of

generally uncorrelated and often irrelevant information, and show the benefits of that clear perspective of a seasoned and leisurely scholarship, with its keen ability to select and emphasize the significant or illuminating characteristics of a period or a people, without which the interpreter of anthropology cannot hope to bring into the mind's focus clear and comprehensible images from the vast panorama of man's achievements.

CORNELIA H. DAM

UNIVERSITY MUSEUM  
PHILADELPHIA

TREE-RING ANALYSIS AND DATING IN THE MISSISSIPPI DRAINAGE, by *Florence Hawley*. With appended papers: REFLECTION OF PRECIPITATION AND TEMPERATURE IN TREE GROWTH, by *Mildred Mott Wedel* and *Florence Hawley*; and A NEW DENDROCHRONOGRAPH, by *E. J. Workman* and *Florence Hawley*. Pp. xii + 110, pls. viii, frontispiece. The University of Chicago Publications in Anthropology, occasional papers, no. 2. University of Chicago Press, Chicago, 1941. \$1.50.

Even the hasty reader will be constantly interrupted and amazed by the many incorrect hyphenations at the ends of lines, misspelled words, incorrect grammar, statements in error, and unhappy expressions in the book Miss Hawley has written. It is most unfortunate that a book of its kind should be so riddled with mistakes. For instance, of incorrect hyphenations there are more than 40, of mistakes in grammar there are at least a dozen, and of misspelled words there are far too many. Dartmouth College, it seems, is located at Andover, Massachusetts. The reviewer considers the use of the popular term "cedar" for at least three different genera of trees to be objectionable in a scientific work. The graphs of Plate VII are inaccurate, messy, without scales, and incorrectly labelled. These are some of the things which strike the reader first of all.

Chapter I, entitled *History of Study*, covers almost exclusively that history favorable to the study and sketches a diary account of field work from 1934 to 1940. Much of chapter II, *Method and Technique*, is a personal record of interest to Miss Hawley, but of little interest to others. Chapter III, *Tree-Ring Analysis*, considers the more important methods of treating rings to be used in dating and measurement. Chapter IV deals with *Problems of Tree-Ring Work* in the *Mississippi Drainage*. Chapter V gives *Summar-*

*ized Progress, Results, and Discussion*. Chapter VI is entitled *Synthesis*. Chapters VII and VIII tabulate ring measurements, but the reviewer is unable to find definitely whether they are in inches or millimeters. Chapter IX lists for certain tree groups those rings which are visibly thinner than their neighbors. Chapter X gives the locations by counties of wood specimens possessed by the University of Chicago laboratory. It might well have been omitted. Following chapter X there is a so-called Protocol, *A New Dendrochronograph*. Many will find it difficult or impossible to construct the apparatus from the description, should they desire to do so. The word "dendrochronograph" strikes one as being somewhat premature.

The book, without doubt, should be viewed as a whole, partly because the topics are not confined to separate chapters and partly because detailed discussion of each section would exceed all reasonable limits of space. Miss Hawley's book dwells upon methods and touches lightly upon results. Obviously, it is intended to be a progress report, showing what the author has been doing the past six years. Miss Hawley has covered an immense amount of territory, has labored with great diligence, but has reaped apparently a scanty reward from a subject whose methods of analysis she has tried so earnestly to apply.

A reader of Miss Hawley's book finds his interest centering on three topics: (1) detailed methods, (2) botanical background, and (3) "tree-ring analysis."

(1) Many paragraphs in the book are given to a description of simple and, on the whole, crude techniques, for the preparation of "rings" to be counted, dated, and measured. A few of the methods described are very useful to the novice but the bulk of them are simply wearisome, exasperating details. The following quotation contains an example of childish advice: "The specimen is put into a vise with the edge to be cut uppermost." One paragraph of eight full lines is devoted to instructions on how to make a pinprick and what kind of pin to use. Why is there no mention of the common dissecting needle about which every freshman in a biological laboratory knows?

(2) Although the study of tree-rings lies almost wholly within the field of the trained botanist, no mention is made of a botanist in the section of the book on *Acknowledgments*. The book is written for archaeologists by an archaeologist. As to

botanical information possessed by the author, the book must speak for itself. "... one remembers that for growth the roots of a tree must take in food as well as water. Food is obtained ordinarily through breakdown of the mineral material surrounding these roots." That is hardly true. Roots take in mineral matter, to be sure, but any elementary textbook of botany explains that food in the form of sugars is manufactured in the leaves from carbon dioxide and water in the presence of chlorophyll under the influence of sunlight. Or again: "Pine trees, like children, grow faster in youth than when they are older. As time goes on, the normal annual increment becomes smaller. . . ." Neither sentence in the quotation is strictly true. The first obviously refers to growth in relation to total size in the seedling or early sapling stages, because surely a 100-foot tree grows much more wood per year than a 5-foot tree does. The second sentence arises from the practice of working with linear thicknesses of rings as seen in one dimension on a cross-section, rather than with volume increase over the whole tree. A growth ring in, say, the second century of a tree's lifetime may have only a fraction of the thickness of one in the first 50 years, and yet the *thinner* growth ring of the second century has many times the volume of the *thicker* growth ring of the first 50 years. Other examples simply illustrate further the remarkable disregard of botanical knowledge and the freedom from consultation with botanists.

(3) What has rather hopefully been called a "science of tree-ring analysis" by its proponents includes dating, cross-dating, and the relation of ring thicknesses to rainfall. Dating to tree-ring workers means exact dating to the year, or even a portion of the year, 2, 10, 20, or more centuries ago. This requires the ability to identify the exact annual increment with absolute precision. Some workers have obtained their "certainty" by assuming that a tree forms a maximum of one sharply bounded growth ring, and only one, each year. As a matter of fact, botanical research appears to indicate that a tree does not necessarily form a maximum of one growth ring a year. Two or more growth flushes in a season are known to occur in different regions. It would seem the part of wisdom for tree-ring workers to forego dating with "certainty" until they know exactly when, how, and how often their trees grow. At present, dating apparently contains a factor of error which varies in size from zero upward, depending upon

the region, and which becomes cumulative backward in time.

Cross-dating refers to the matching of the growth rings of one tree with those of another by means generally of certain isolated thin rings. It is held by some workers in tree-rings to prove the annual identity of growth rings and to form the basis from which rainfall is determined. Cross-dating does not necessarily prove that each ring represents a year; it simply means a similarity of response to growing conditions among certain of the trees in a group. If conditions are favorable to the formation of two rings in one year many (or all) trees will show two rings. These, of course, cross-date from one tree to another but do not prove annual identity. So far as the reviewer knows, there is as yet no verification for the allegation that only cross-dated trees show the influence of rainfall. A big problem besets Miss Hawley when she finds a lack of cross-dating between hemlocks and pines in the northern part of her area, although each species cross-dates within itself. Which species, then, gives a record of rainfall? Concerning the lack of cross-dating, Miss Hawley says, "This is a problem which should be investigated by botanists interested in tree growth studies." Should not Miss Hawley also be interested in tree-growth studies, studies fundamental to the "tree-ring work" she has been carrying on?

Comparison of ring thicknesses with rainfall has been done in the book by means of statistical correlation. Recently much criticism has been aimed at the careful selection by which samples of tree-rings are obtained for correlation purposes. Statistics require random, not carefully selected, samples. Miss Hawley speaks of "fine" specimens and "good" curves. The reader is left in the dark unless he makes the natural inference from the context that "fine" specimens are those cross-dating with each other and "good" curves are those yielding a fair coefficient of correlation with rainfall: a rather dangerous standard. Correlation, correctly applied, suggests relationships. Correlation is a point of departure for future investigations; it is not a basis of interpretation. Even if these objections to the methods employed could be disregarded, it is to be noted that Miss Hawley's coefficients of correlation between tree-growth and rainfall are only fair. They do not justify her in saying that certain years in the past were dry and certain others wet.

The matter of comparison with rainfall brings up another phase of the topic. Time after time

Miss Hawley refers to the many factors which influence tree growth and yet she always returns to the one factor rainfall. She goes so far as to say, "The object was a study of the precipitation and runoff of the past through tree-rings of the past." Such studies interpret thin rings as representing dry years and thick rings as representing wet years. The interpretation may give difficulties. For instance, five master charts in chapter IX of the book under review give those dates whose growth rings are distinctly thinner than their neighbors and therefore represent more or less dry years. An analysis shows that the percentages of thin rings in the five sequences are: 38, 40, 42, 43, and 50. The figure of 50 per cent refers to pines from eastern Tennessee and Georgia. It seems strange to learn that from 38 to 50 per cent of the years are so dry as to affect tree-growth. Are there no rings of average width? Some light may be thrown upon the matter by the work of Fryon and Finn (*Jour. Forestry* 38, 1940, pp. 644-645), who analyzed the annual rainfall for a part of New York and found that very wet years constituted 3.4 per cent, wet 21.3 per cent, average 56.2 per cent, dry 18.0 per cent, and very dry 1.1 per cent of the total. Surely much investigation

remains to be done upon the relation of rainfall to tree-growth before it can be accepted that 50 per cent of the growth rings in eastern Tennessee and Georgia reflect drought years of varying degree.

The book, on the whole, will be a disappointment to scientists, not so much because of its many irritating mistakes, but more especially because "tree-ring analysis" does not seem as yet to be rooted in a solid foundation of experimental and observational facts in the field of botany. Such lack of a botanical foundation will make archaeologists hesitate to accept interpretations based upon "tree rings" at the present time. Throughout the book Miss Hawley constantly separates the tree-ring from the botanical phases of her subject, as if they were things apart. She has made no attempt to investigate the actual formation of wood, or the physiological and ecological factors pertaining thereto. The reader gets the feeling, however, that Miss Hawley fully realizes the logic and the distinct advantages in a botanical approach to tree-ring problems. Therefore, her healthy reluctance to state archaeological conclusions merits respect.

WALDO S. GLOCK

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## ABBREVIATIONS

The following abbreviations of the titles of publications will be used in the *JOURNAL*, other titles being uniformly abbreviated:

- AA*: Archäologischer Anzeiger.
- AASOR*: Annual of the American Schools of Oriental Research.
- AASPR*: Annual of the American School of Prehistoric Research.
- ABA*: Abhandlungen der Preussischen Akademie der Wissenschaften, Berlin.
- ActaA*: Acta Archaeologica.
- AdI*: Annali dell' Istituto.
- AEM*: Archäologisch-epigraphische Mitteilung.
- AJ*: Antiquaries' Journal.
- AJA*: American Journal of Archaeology.
- AJN*: American Journal of Numismatics.
- AJP*: American Journal of Philology.
- AJSL*: American Journal of Semitic Languages.
- AM*: Athenische Mitteilungen.
- Annuario*: Annuario della R. Scuola Archeologica di Atene.
- AntDenk*: Antike Denkmäler.
- AOF*: Archiv für Orientforschung.
- ARW*: Archiv für Religionswissenschaft.
- AV*: Gerhard, Auserlesene Vasenbilder.
- AZ*: Archäologische Zeitung.
- BASOR*: Bulletin of the American Schools of Oriental Research.
- BASPR*: Bulletin of the American School of Prehistoric Research.
- BCH*: Bulletin de Correspondance Hellénique.
- BdI*: Bulletino dell' Istituto.
- BFM*: Bulletin of the Fogg Museum.
- BIAB*: Bulletin de l'Institut Archéologique Bulgare.
- BJ*: Bursian's Jahresbericht.
- BLund*: Bulletin de la Société Royale de Lettres de Lund.
- BMFA*: Bulletin of the Museum of Fine Arts, Boston.
- BMFEA*: Bulletin of the Museum of Far Eastern Antiquities.
- BMMA*: Bulletin of the Metropolitan Museum of Art, New York.
- BMQ*: British Museum Quarterly.
- BPI*: Bulletino di Paleontologia Italiana.
- BrBr*: Brunn-Bruckmann, Denkmäler.
- BRGK*: Berichte der Römisch-Germanischen Kommission des Deutsch. Arch. Instituts.
- BRISD*: Bulletin of the Rhode Island School of Design.
- BSA*: Annual of the British School at Athens.
- BSR*: Papers of the British School at Rome.
- BullComm*: Bulletino della Commissione Archaeologica Comunale di Roma.
- BZ*: Byzantinische Zeitschrift.
- CAH*: Cambridge Ancient History.
- CIL*: Corpus Inscriptionum Latinarum.
- CP*: Classical Philology.
- CQ*: Classical Quarterly.
- CR*: Classical Review.
- CRAI*: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres.
- CVA*: Corpus Vasorum Antiquorum.
- CW*: Classical Weekly.
- Δελτ*: 'Αρχαιολογικὸν Δελτίον.
- DLZ*: Deutsche Literaturzeitung.
- Εφ*: 'Αρχαιολογικὴ Ἐφημερίς.
- FR*: Furtwängler-Reichhold, Griechische Vasenmalerei.
- FuF*: Forschungen und Fortschritte.
- GBA*: Gazette des Beaux-Arts.
- GGA*: Göttingische Gelehrte Anzeigen.
- HarvSt*: Harvard Studies in Classical Philology.
- IG*: Inscriptiones Graecae.
- ILN*: Illustrated London News.
- JAOS*: Journal of the American Oriental Society.



*JdI*: Jahrbuch d.k.d. Archäologischen Instituts.  
*JEA*: Journal of Egyptian Archaeology.  
*JHS*: Journal of Hellenic Studies.  
*JOAI*: Jahreshefte des Oesterreichischen Archäologischen Instituts.  
*JPOS*: Journal of the Palestine Oriental Society.  
*JRAI*: Journal of the Royal Anthropological Institute.  
*JRAS*: Journal of the Royal Asiatic Society.  
*JRS*: Journal of Roman Studies.  
*LAAA*: Liverpool Annals of Archaeology and Anthropology.  
*MAAR*: Memoirs of the American Academy in Rome.  
*MDOG*: Mitteilungen der Deutschen Orient-Gesellschaft.  
*Mél*: Mélanges d'Archéologie et d'Histoire.  
*MJ*: Museum Journal of the University of Pennsylvania.  
*MonAnt*: Monumenti Antichi.  
*MonInst*: Monumenti dell' Istituto.  
*MonPiot*: Monuments et Mémoires pub. par l'Acad. des Inscriptions (Fondation Piot).  
*MJb*: Münchner Jahrbuch der bildenden Kunst.  
*NJ*: Neue Jahrbücher für das klassische Altertum.  
*NNM*: Numismatic Notes and Monographs.  
*NS*: Notizie degli Scavi di Antichità.  
*NumChron*: Numismatic Chronicle.  
*NZ*: Numismatische Zeitschrift.  
*OIC*: Oriental Institute Communications.  
*OIP*: Oriental Institute Publications.  
*OLZ*: Orientalistische Literaturzeitung.  
*PAPS*: Proceedings of the American Philosophical Society.  
*PEFA*: Palestine Exploration Fund Annual.  
*PEQ*: Palestine Exploration Fund Quarterly Statement.  
*PM*: Evans, Palace of Minos.  
*PPS*: Proceedings of the Prehistoric Society.  
*PQ*: Philological Quarterly.  
*Πρακτ*: Πρακτικά τῆς Ἀρχαιολογικῆς Ἑταιρίας.  
*PW*: Philologische Wochenschrift.  
*PZ*: Prähistorische Zeitschrift.  
*QDAP*: Quarterly of the Department of Antiquities in Palestine.  
*RA*: Revue Archéologique.  
*RB*: Revue Biblique.  
*RE*: Pauly-Wissowa-Kroll, Real-Encyklopädie der Klassischen Wissenschaft.  
*REA*: Revue des Études Anciennes.  
*REG*: Revue des Études Grecques.  
*RendLinc*: Rendiconti della Reale Accademia dei Lincei.  
*REp*: Revue Épigraphique.  
*RevNum*: Revue Numismatique.  
*RevPhil*: Revue de Philologie.  
*RHA*: Revue Hittite et Asiatique.  
*RhM*: Rheinisches Museum.  
*RivFil*: Rivista di Filologia.  
*RM*: Römische Mitteilungen.  
*SBA*: Sitzungsberichte der Berliner Akademie.  
*SCIMC*: Short Communications of the Institute of Material Culture, U.S.S.R.  
*SEG*: Supplementum Epigraphicum Graecum.  
*SIG*: Dittenberger, Sylloge Inscriptionum Graecarum.  
*SO*: Symbolae Osloenses.  
*StEtr*: Studi Etruschi.  
*TAPA*: Transactions of the American Philological Association.  
*WS*: Wiener Studien.  
*WV*: Wiener Vorlegeblätter.  
*ZDMG*: Zeitschrift der Deutschen Morgenländischen Gesellschaft.  
*ZfE*: Zeitschrift für Ethnologie.  
*ZfN*: Zeitschrift für Numismatik.

## ARTISTIC AND MECHANICAL LITHOGRAPHERS SOUGHT BY GOVERNMENT

MAPS are implements of war! Topographic maps are needed for military operations—nautical charts for our Navy and Merchant Marine—aeronautical charts for military aviation and for pilot training. Map and chart making agencies of the Government are seeking skilled lithographers to produce the maps needed by our Army, Navy, and Merchant Marine.

The Civil Service Commission has just announced an examination to secure lithographers (artistic or mechanical) for positions paying from \$1,440 to \$2,000 a year. Because of the demand for qualified eligibles, applications will be accepted by the Commission until further notice. A written test will not be given; applicants will be rated on their education and experience. If you are qualified and available, apply today!

For ALL grades, applicants must have had 9 months' skilled, paid experience in a lithographic shop, in one or more operations used in lithographic reproduction work. In addition to this experience, for all but the junior grade positions, additional experience is required in one specialized phase of lithographic reproduction work, such as negative engraving, plate making, work on plates or stones, press work, or other operations.

For the 9 months' skilled experience required, applicants may substitute (a) 6 months' course at a lithographic school; (b) one year college study which included 6 semester hours in lithography; (c) one year appropriate night school or technical institute study; or (d) a U. S. approved defense training course in lithography. Applications will be accepted from persons who are now taking the college or technical institute study.

Persons who have been rated eligible under Announcement No. 148 for Artistic Lithographer issued October 31, 1940, need not apply for this examination.

Examination announcements and application forms may be obtained at first- and second-class post offices or from the Civil Service Commission, Washington, D. C.

## NOTICE

WE HAVE had notice of the foundation of the East Indies Institute of America, Inc., dedicated to the promotion of studies in the fields of humanities and sciences pertaining to the Malay Archipelago, the Malay Peninsula, the Philippine Islands and regions culturally connected with them. The President is Professor Adriaan J. Barnouw of Columbia University, and the Board of Directors is composed of Adriaan J. Barnouw, Cora Du Bois, Edwin R. Embree, Robert Heine-Geldern, Ralph Linton, Margaret Mead. The Secretary is Claire Holt and the offices of the Institute are at 15 West 77th Street, New York City.

## ARCHAEOLOGICAL NOTES

### THE UNVEILING OF THE BYZANTINE MOSAICS IN HAGHIA SOPHIA IN ISTANBUL

#### PLATES I-X

A THOUSAND years and more before St. Peter's was consecrated at Rome, Justinian had built his great church at Constantinople and dedicated it to Divine Wisdom, the title of the earlier church on the same site. Until yesterday it was a mosque and had been a mosque during nearly five centuries since the Turks conquered the city and ruled Istanbul. Today it has been converted into a museum of Byzantine Art. Haghia Sophia was incomparably more richly built than any other church in Christendom and was more richly endowed with treasure. Into it poured the wealth of an empire to adorn the imperial place of worship, and everything combined to make it the most illustrious of Christian shrines.

Legend has gathered round this building. It has been the theme of poems, the subject of history, the object of architectural study; but it also excited the greed of Europe, and not only the ravages of time, but the sacrilegious hands of western Christians also robbed it of its wealth accumulated to the service of God. All that was portable was stolen from the Church when, in 1204, the city was sacked in the Fourth Crusade. What remained in the edifice, however, as we can judge for ourselves, sufficed to justify the fame of its glory. The gorgeous architecture was uninjured, the lustrous marbles shone as of yore, the amazing carvings were untouched, and, in particular, the magnificence of its mosaics suffered no degradation

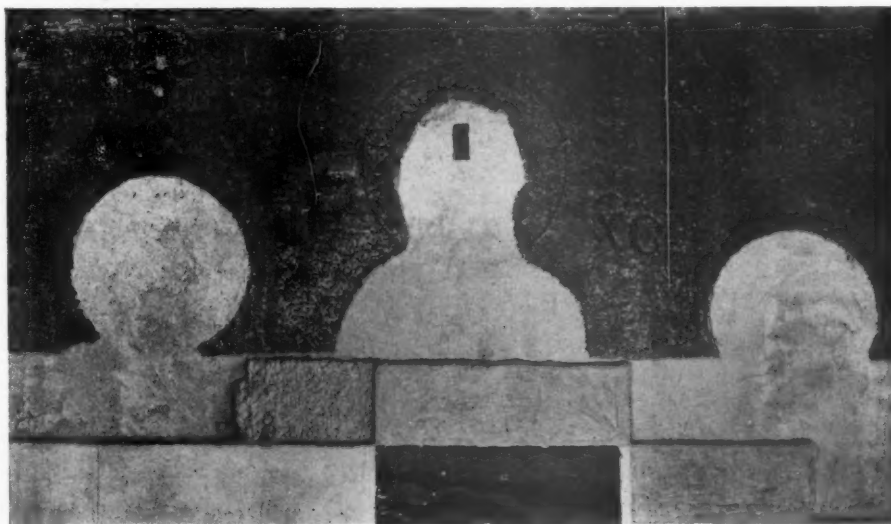


FIG. 1.—SHOWING THE CAREFUL UNCOVERING PROCEDURE IN SEVEN LEVELS OF THE FIGURES OF  
EMPEROR CONSTANTINE IX AND EMPRESS ZOË

It is with these mosaics that we are concerned today. The Church abounds eminently in this form of decoration. The extensive wall-surface shone with the gold and colors of an art that was developed in Byzantine times to the height of its possibilities. There are to be found in the Church examples illustrating the art of many centuries between the sixth and fourteenth, all in the state in which they were left by the artists, and most in welcome, if not perfect, preservation.

These mosaics were chiefly of Christian significance, though many are historical portraits; yet all, in deference to sensitive Mohammedan orthodoxy, had been covered and hidden from view. We readily understand that lovers of art and its historians, artists and students of Christian representation, have long wished to be told what lay hidden beneath those veils of paint and to see the Church with its harmonies complete.

To uncover and preserve these mosaics is now the privileged task entrusted by the Turkish Government to Thomas Whittemore of the Byzantine Institute, and this is the labor of delicacy and skill presently going forward with the aid of his assistants under the eyes of an eager world of connoisseurs and sympathizers. It is a search for treasure—with the treasure certainly there and located. There is no need to exaggerate the importance of the work. We are to see the authentic and



FIG. 2.—FIGURE OF ALEXIS COMNENOS, SON OF JOHN II, APPEARING FROM BEHIND THE PLASTER



authoritative mosaics of the central shrine in the metropolitan city of the Eastern Empire, embellishments ordained by emperors during a thousand years, the original texts, as it were, of poems composed by the noblest poets of the Byzantine world. They will form a solemn series, an encyclopaedia of the Byzantine appeal to human perception, a unique collection of pictures still functioning as they were designed to function.

It was once the mode to smile contemptuously at Byzantine Art. Today we study it with respect and expectancy almost approaching awe. This is not only with a desire to contribute to the knowledge of Christian archaeology and to learn lessons of craftsmanship and masterly technique from the execution of Byzantine mosaics, which was developed with a talent and devotion that place them at the pinnacle of human works. The Byzantine period is at last being recognized as a time of epochal advance. Dr. Alfred Whitehead, Professor of Philosophy in Harvard University, expressed this conviction in a pregnant passage in *Adventures of Ideas* (1933, p. 104): "The distinction separating the Byzantines and the Mohammedans from the Romans is that the Romans were themselves deriving the civilization which they spread. In their hands it assumed a frozen form. Thought halted, and literature copied. The Byzantines and the Mohammedans were themselves the civilization. Thus their culture retained its intrinsic energies, sustained by physical and spiritual adventure. They traded with the Far East; they expanded westward; they codified law; they developed new forms of art; they elaborated theologies; they transformed mathematics; they developed medicine."

The approach to art by the aristocratic Byzantine mind was certainly different from that of the western artist, whether ancient Greek, Gothic, classical Italian, or modern inheritor of those traditions. We are aware of many revolutions, none perhaps more profound or more baffling than that of post-impressionist art. We are beginning to learn that a relation exists between one aspect of this modern movement and the spirit that endowed the world with Byzantine architecture, Byzantine music and ceremony, which has left the trail of its glory over Mohammedan mosques, oriental palaces, Persian pottery and carpets, Coptic textiles, in sculpture, jewellery and enamels, glass-work, metal-work, ivories, coins, seals and manuscripts of incomparable splendor. On the threshold of a new art, of a new vision, perhaps indeed of a new action and understanding of life, we are encouraged to enter undaunted into the temple of the future with the knowledge that we are following the footsteps of inspired explorers.

The mosaics of Haghia Sophia will thus be an addition of immeasurable importance to the relics of man's creative effort. Fire has destroyed Byzantine mosaics in Salonika, war has wiped out those of Nicaea, the disaster of restoration has impaired the Italian examples. It would be difficult, therefore, to overestimate the value for human progress of the unveiling of these rare glories which render illustrious the walls of Haghia Sophia and magnify its name.

THOMAS WHITEMORE

ISTANBUL

## NEW GREEK BRONZE VASES

### A COMMENTARY ON PINDAR

SEVERAL Greek bronze vases have come to museums during recent years, some of which are said to have been found in the Peloponnesos. Many are of archaic style and are of considerable interest in these days when there is predilection for archaic art.<sup>1</sup> Compared with the number of terracotta vases known, the list of bronze vessels is small, since many have gone into the melting-pot or have perished. Gradually we may hope to do for Greek bronzes what has been done for terracotta vases in establishing styles, dates and centers of manufacture. It is my purpose in this paper to call attention to some of these bronze vases, especially to a bronze hydria and an oinochoe, acquired for my collection from dealers in Western Europe. Their provenance is Achaia. They confirm the historical accuracy of Pindar and his knowledge of art, especially of vases, to which he often refers.

In the tenth Nemean ode, which dates a little before the time of our bronzes and which also mentions Panathenaic vases (l. 36: ἐν ἀγγέων ἔρκεσιν παμποικίλοις) and Sikyonian silver-ware (l. 43: Σεκυωνόθε δ' ἀργυρωθέντες σὺν οἰνηραῖς φιάλαις ἀπέβαν), Pindar<sup>2</sup> says:

ἀλλὰ χαλκὸν μυρίον οὐ δυνατόν  
ἐξελέγχειν—μακροτέρας γὰρ ἀριθμῆσαι σχολᾶς—  
ὃν τε Κλείτωρ καὶ Τεγέα καὶ Ἀχαιῶν ὑψίβατοι πόλεις  
καὶ Λύκαιον παρ Διὸς θῆκε δρόμῳ,  
σὺν ποδῶν χειρῶν τε νικᾶσαι σθένει.

"Countless prizes of bronze it is impossible to reckon—for it were a work of longer leisure to number them—the bronze which Kleitor and Tegea and the high-throned cities of the Achaeans and the Lycaean mount set by the race-course of Zeus as prizes for man to win by strength of feet and hands" (Sandys).

Pausanias<sup>3</sup> speaks of a bronze pedestal at Olympia, and on it an image of Zeus, which he guessed to be about eighteen feet high. An inscription in elegiac verse declares who presented it to the god and who made it:

Κλειτόριοι τόδ' ἄγαλμα θεῷ δεκάταν ἀνέθηκαν  
πολλᾶν ἐκ πολίων χερσὶ βιασσάμενοι,  
καὶ Μετρεῖ[τοῦ υἱέ]<sup>4</sup> Ἀρίστων ἡδὲ Τελέστας  
αὐτοκασίγνητοι καλὰ Λάκωνες ἔθεν

<sup>1</sup> Cf. S. Casson, "The Popularity of Greek Archaic Art," *Magazine of Art* xxx, 1937, pp. 281-289.

<sup>2</sup> *Nem.* x, 45-48. The scholiast says: λέβητα γὰρ ἐτιμῶντο ἐν πολλοῖς τῶν ἀγώνων . . . χαλκὸν αἱ περὶ Κλείτορα καὶ Τεγέαν πόλεις Ἀργολικαὶ ἄθλον ἔθηκαν. For games at Kleitor, cf. Geiger in *RE.* xi, s.v. *Kleitor*, 663. Pindar is said to have died at the age of eighty, in 442 B.C. in the gymnasium at Argos in "a noontide blaze of glory" in the arms of his favorite, Theoxenos. The tenth Nemean ode might date in 465 or 463 or 461 B.C., certainly after the fall of Tiryns in 467 B.C. Cf. D. M. Robinson, *Pindar*, Baltimore, 1936, pp. 2, 93.

<sup>3</sup> *V.* 2, 37.

<sup>4</sup> For other unsatisfactory restorations, cf. Preger, *Inscriptiones Graecae Metricae*, p. 50, no. 62. For the use of the dual case, cf. *JdI.* liii, 1938, II, *Bericht über die Ausgrabungen in Olympia*, p. 129. My restoration of Μετρεῖτοῦ = Μετρητοῦ is uncertain.

"The Kleitorians dedicated this image to the god as a tithe  
From many cities which they conquered.  
<It was made by> Aristo and Telestas  
Own brothers and Laconians" (Frazer).

Telestas appears as an Argive name in *IG.*<sup>2</sup> i, 391, l. 18; as an Attic name in Demosthenes, *Against Androtion*, 60. The name occurs with two sigmas and with Spartan forms of letters on the rim of a bronze hydria from the beginning of the sixth century B.C., belonging to a private collection in Darmstadt, but lent to the Antiquarium in Berlin. Neugebauer<sup>5</sup> rightly believes in a Peloponnesian School of archaic bronzes at Sparta and rightly interprets the inscription on the rim of the hydria in Berlin as an artist's name. The colossal dedication of the city Kleitor at Olympia, the Zeus made by Ariston and Telestas, he finds difficulty in dating so early, but in view of the Pindar passage (not cited by Neugebauer) and in view of other early colossal bronze statues, such as the Amyclaeon Apollo and the Athena Promachos, I see no objection to thinking that the same Spartan Telestas made the statue at Olympia and the bronze hydria.<sup>6</sup> Perhaps the Achaean art of making bronze hydriai with plastic handles was influenced by Sparta, where it flourished in the archaic period.<sup>7</sup> Kleitor, Corinth, and Achaean cities, such as Aigion, probably received bronze works from Spartans who worked for those cities, as the passage in Pausanias shows. Pausanias<sup>8</sup> speaks of bronze images of deities in the sanctuary of the Dioskouroi at Kleitor. The bronze "spear-butt," now in the Metropolitan Museum, with an Arcadian inscription stating that it was "sacred to the Tyndaridai from the Heraeans," may have come from this very sanctuary.<sup>9</sup>

So much for bronzes from Kleitor<sup>10</sup> as a commentary on the Pindar passage. Let us now turn to bronzes from the Achaeans' high-throned cities.

1. The bronze hydria in Baltimore (figs. 1, 2), though acquired in Western Europe, was said by a trustworthy source to have been found in a tomb near Aigion, in Achaia, in the spring of 1938, along with the golden earrings described below. Its total height is 0.48 m. (1 ft., 6.9 in.).<sup>11</sup> The handle is finished above in the form of

<sup>5</sup> *AA.* liii, 1938, 329-338, Abb. 1-3.

<sup>6</sup> Robert, *RE.* ii, 1, 959 ff., dates the statue in the sixth or beginning of the fifth century. Lippold, *RE.* ix, 390, gives no date for Telestas. Hiller von Gaertringen, *IG.* v, 2, p. 85, is uncertain. Neugebauer, *AA.* liii, 1938, 335, says: "Die Statue . . . in Olympia kann man nicht datieren," but he admits that an archaic date is not improbable, "wegen der sprachlichen Form der rhythmischen Weihinschrift, in der epische Elemente sich mit heimischem Dialekt vermischen." The order of the enumeration of dedicators, deity, occasion, and artists, each line separate from the next, the place of *ἑκαλμα* in the line, and other features are characteristic of the period around 500 B.C. Cf. Geffcken, *Griechische Epigramme*, nos. 7-34; Richter, *AJA.* xliii, 1939, p. 200. The three monuments mentioned by Pausanias as near the statue date from 516 to 488 B.C. Künze and Schleif, *JdI. loc. cit.*, p. 123, think that the interpretation of the inscription in the nominative without *ἐποίησεν* is hypothetical, but Duris appears alone on a lekythos in Berlin (Hoppin, *Handbook R.-F. Vases* i, p. 221).

<sup>7</sup> Cf. note 70.

<sup>8</sup> *viii*, 21, 4.

<sup>9</sup> *AJA.* xliii, 1939, pp. 194-201, figs. 4-5.

<sup>10</sup> For Arcadian bronzes in general cf. Lamb, *Greek and Roman Bronzes*, pp. 37, 82, 91-96, 151-154 (no mention of Pindar or literary sources). Kleitor is given as a provenance of several bronzes on p. 96.

<sup>11</sup> The greatest circumference is 0.913 m., the smallest circumference of the body is 0.44 m. Height without handle, 0.425 m. Diameter of body is 0.273 m. The diameter of the foot is 0.15 m. The diameter of the rim of foot is 0.03 m. The height of the neck is 0.085 m., the smallest circumference of the neck is 0.33 m. The greatest diameter of the lip is 0.195 m., the inner diameter is 0.105 m. The height of the handle is 0.16 m., with the head it is 0.184 m. The height of the bust is 0.085 m., the height of the

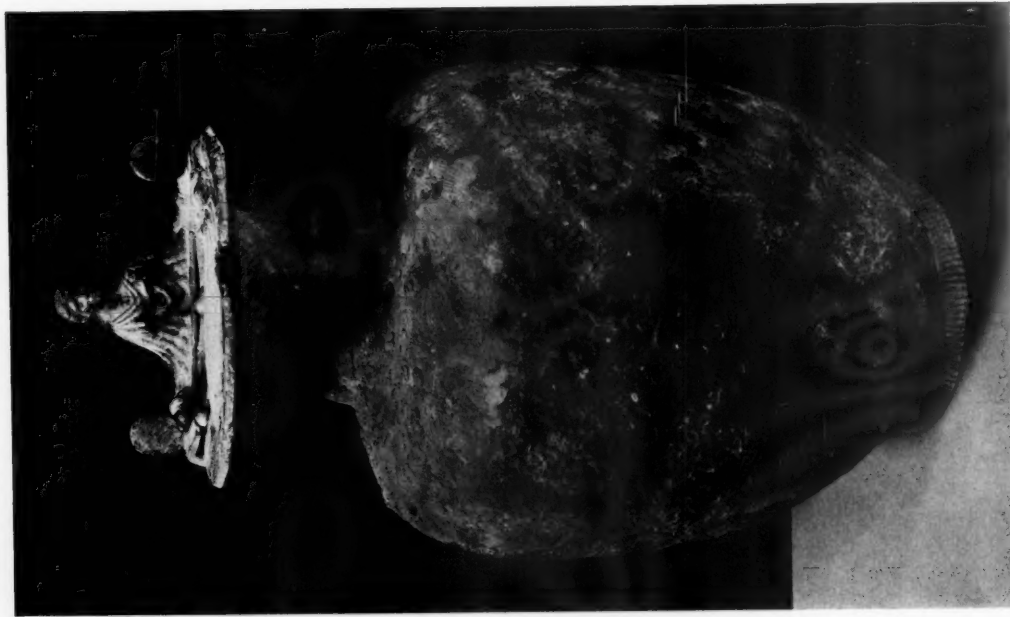


FIG. 1.—FRONT VIEW OF BRONZE HYDRIA FROM AIGION, NOW IN  
BALTIMORE

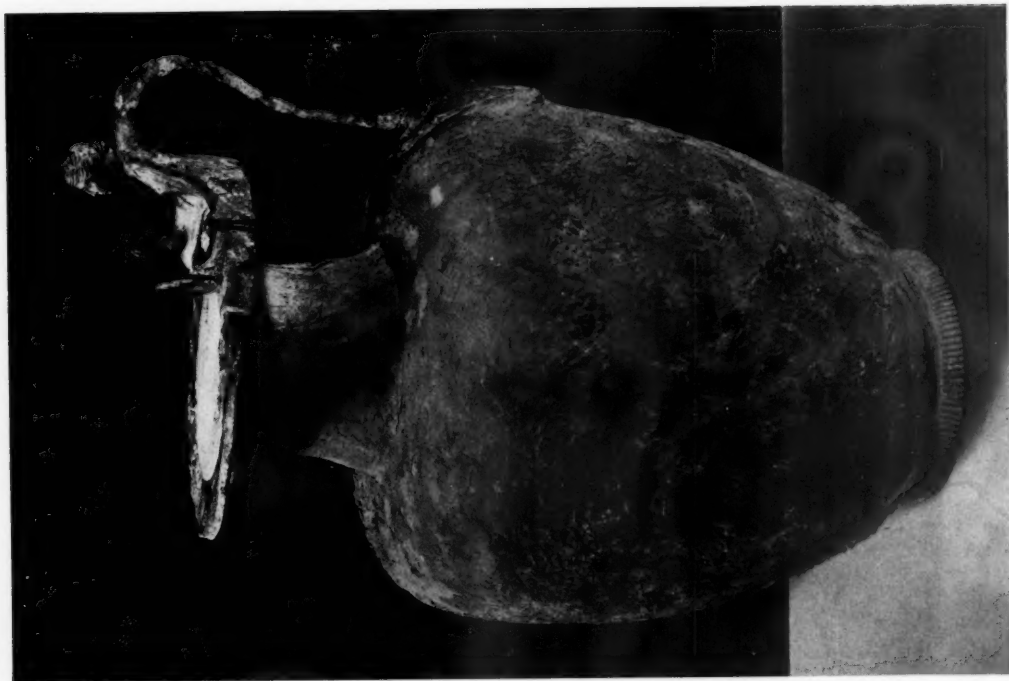


FIG. 2.—SIDE VIEW OF HYDRIA FROM AIGION

the upper half of a female figure, and below in a large acanthus palmette. The mouth of the vase has a hinged lid,<sup>12</sup> with a central omphalos within three double concentric circles. The border design is an admirable cable-pattern (fig. 3), made up of de-



FIG. 3.—LID OF HYDRIA FROM AIGION



FIG. 4A.—PALMETTE DESIGN  
ON REAR OF HYDRIA FROM  
AIGION



FIG. 4.—REAR OF HYDRIA FROM AIGION

pressed undulating lines and circles, within double circles above and below. Outside this is a wide concave circle, a broad convex circle, or torus, two narrow convex circles, and the rounded rim. The lid was

attached to the vase by an iron hinge, three sections of which remain, in addition to

head, 0.031 m., the thickness of the head 0.028 m., the breadth of the head 0.032 m., the width of the bust 0.079 m. The diameter from outer edge of one disk to outer edge of other is 0.186 m. The diameter of the disks 0.03 m. The height of the palmette is 0.106 m., the width, 0.065 m. The diameter of the lid is 0.134 m.

<sup>12</sup> An archaic bronze hydria from Eretria in the National Museum at Athens (15137), with a female bust at the base of the handle, a ram on either side at the base, and lions at the top, has a lid of lead, fastened to the mouth with four nails ('Eφ. 1936, pp. 148-149, figs. 1, 2; 157-158, figs. 9-11, pl. 1). Cf. also a bronze hydria from Kertch, with lead lid and nails and containing the ashes of the dead (Furtwängler, *Sammlung Sabouroff* ii, pl. 149); also a hydria full of burnt bones, published in Πρακτ. 1886, p. 57. Perhaps our hydria also was used as a burial urn. Sirens were associated with the grave. There was a Siren on the grave of Isocrates. The female figure on our hydria could be such a figure, or it might be Hera, Aphrodite, Artemis or Kore, all of whom had temples or shrines at Aigion (Paus. vii, 23, 9-11; 24, 2). Even Cybele with her cymbals might be suggested.



the iron oxide adhering to the lid. It seems to have opened against the disk on the left and not against the bust itself. No side handles are preserved and if there were any attached, all traces of them have disappeared. The echinus-like convex foot is fluted vertically.

The handle, lid, and ring-foot are in excellent condition and have a beautiful patina, varying from peacock blue to emerald green. The body of the vase has been reconstructed from a considerable number of pieces, but actually very little of the original is missing. The thinness of the metal, however, has necessitated a fair amount of reinforcing with plaster, which is required to keep the vase in shape. The body and neck are of sheet bronze; part of the rim and the vertical handle were cast in a separate piece and fastened on by means of a groove and soldered. The handle is riveted on with three rivets with round heads.

Perhaps the main interest of our hydria lies in the female figure, whose schematized arms rest on the rim. They end in two upright undecorated disks and were encircled by a ring or bracelet near the hand. The figure forms the termination of the beautifully curving vertical handle which has at its lower end (figs. 4, 4a) an interesting attachment, decorated with an inverted scroll and palmette design. Just as a perfume vase often turns into the form of a female figure, or a mirror-handle into the likeness of a maiden, or the curves of a handle ornament into the likeness of a pair of ears, or even a complete face, so our vase has a personality.<sup>13</sup> It is, of course, an original Greek work of art.

Just as sculpture developed different types with variations, as Loewy<sup>14</sup> has shown, so the hydria<sup>15</sup> slowly evolved. We can date our vase, because of its form and style, about the middle of the fifth century B.C. It possesses the restraint, the severe subtlety, and beauty characteristic of Greek art of this period. The head has a quality which will bear enlarging (fig. 5). The figure looks forward and upward, with a dignified and pleasant expression. The mouth, eyes, and nose are well chiselled. The hair, parted in the middle, is rolled up in front and at the back in oblique lines. On top the strands radiate from the crown in curving lines. This fashion of rolling the hair is often found on bronzes at Corinth and neighboring sites.<sup>16</sup> It occurs on the so-called Apollo of Pompeii,<sup>17</sup> the Apollo of Mantua,<sup>18</sup> the fifth-century bronze head in Athens from the Acropolis, and in other statues and busts which are copies of original Greek statues dating about the time of our vase (470–450 B.C.). The eye is

<sup>13</sup> For this quickening tendency of the Greek artist cf. *JHS*. lviii, 1938, p. 41; Jacobsthal, *Ornamente*, p. 42, pl. 21; p. 52, pl. 39d; *CQ*. xxxiii, 1939, pp. 178–179.

<sup>14</sup> Cf. "Typenwanderung," *JOAI*. xii, 1909, pp. 243–304.

<sup>15</sup> Cf. Elvira Fölzer, *Die Hydria, ein Beitrag zur griechischen Vasenkunde*, passim; Richter and Milne *Shapes and Names of Athenian Vases*, pp. 11–12, figs. 76–86.

<sup>16</sup> Cf., for example, Langlotz, *Frühgriechische Bildhauerschulen*, pl. 33a (mirror support from Kleonai), pl. 40b (mirror support, attributed to Corinth), pl. 43a (the Apollo from Pompeii in Naples, perhaps a copy of a Thyrean Apollo, a work of the Corinthian school), pl. 43b (a bronze male head attributed to Corinth, now in Athens, De Ridder, *Catalogue des bronzes trouvés sur l'Acropole d'Athènes*, no. 767, pl. VI, figs. 274–275; BrBr., pl. 461). The rolled hair occurs also on marble heads of the period from 470–450 B.C., such as the famous Lanckoronski relief of Athena with the owl, the head from Piraeus, the Kritian Acropolis ephebe, *JOAI*. xvi, 1913, pp. 7, 16, 17.

<sup>17</sup> BrBr. pl. 302. It is not certain that Ageladas of Argos was the sculptor, but the style seems at least to be Peloponnesian, possibly Corinthian (see note 16).

<sup>18</sup> BrBr. pl. 303.



FIG. 5.—FEMALE BUST ON A HYDRIA FROM AIGION



FIG. 6.—FEMALE BUST ON A HYDRIA FROM AIGION

properly sunk and the upper eyelid is correctly rendered. The eyes are no longer in nearly one plane with the eyebrows, and the eyelid is no longer a ridge, as in the Athena of the Aegina west pediment.<sup>19</sup>

The folds of drapery over the breast are rendered simply, in Dorian fashion (fig. 6). The composition and general style and treatment of the peplos and the folds below the breasts, as well as the arrangement of the hair and the features of the face recall the style of the Olympia sculptures and of the many well-known monuments which go back to fifth-century originals of about the same time, such as the dancing girls from Herculaneum,<sup>20</sup> the Hestia Giustiniani,<sup>21</sup> the Copenhagen statue,<sup>22</sup> a bronze statuette at Bowdoin College, and the peplos statue in the National Museum in Rome.<sup>23</sup> One is also reminded by the general style of the profile and the hair-dressing, of Syracusan coins which date between 474 and 450 B.C.<sup>24</sup> and of female figures which support mirrors of Peloponnesian style, dating about 460–450 B.C.<sup>25</sup>

*Parallels.* The famous New York bronze hydria (figs. 7–10) is at once called to mind by our vase and it is instructive to compare them. Miss Richter<sup>26</sup> rightly dates the hydria in the Metropolitan ca. 460 B.C. The Aigion hydria<sup>27</sup> is perhaps ten years later, after Tolmides had made an expedition in 455 B.C. around the Peloponnesos, and Achaia had been brought into alliance with Athens. The Achaean hydria is of a more slender form. The body is more oval, but the foot and neck are similar, as is the general shape of the handle and palmette. The three rivets, the method of attaching the handle to the rim, and the female figure itself are similar, though the disks, set obliquely in the New York hydria, are convex, and are decorated with rosettes of "exquisite execution," "with delicate modelling of the individual leaves," as Miss Richter says, whereas ours were perfectly plain, though they may have been painted.<sup>28</sup> The handle and bust, however, are as artistic as are those of the New York hydria. The Aigion vase-handle does not rise as steeply behind the figure as the New York handle does. This is an improvement, because it affords a clear view of the back of the girl's head (figs. 2 and 4). Our figure is perhaps more attractive and classically beautiful than the pouting head on the New York hydria (fig. 10), and her drapery is curved out with fully as much subtlety and elegance. Our vase has

<sup>19</sup> Furtwängler, *Aegina, Das Heiligtum der Aphaia*, pl. 96.

<sup>20</sup> BrBr. pls. 294–295.

<sup>21</sup> Cf. BrBr. pl. 491.

<sup>22</sup> Cf. Richter, *The Sculpture and Sculptors of the Greeks*, fig. 320.

<sup>23</sup> BrBr. pl. 357. Cf. also the many copies of a female statue of about 460–450 B.C., for which I give references in *Anatolian Studies* Buckler, p. 256, n. 1.

<sup>24</sup> Cf., for example, a Syracusan tetradrachm from the Baron Schennis collection, Hirsch's *Munich Cat.* xxxiii, no. 445; Boehringer, *Die Münzen von Syrakus*, no. 534, pl. 20.

<sup>25</sup> Cf. *AA.* liii, 1938, pp. 543–545, figs. 1–6 (pp. 548, 552). In the Metropolitan Museum (06.1114) is a mirror-support from Macedonia, the hair rolled back in sections. It dates about the same time as our own hydria (Richter, *Greek, Etruscan and Roman Bronzes*, no. 86). Cf. note 16 above.

<sup>26</sup> *B.M.M.A. Suppl.* (Part II), April 1925, pp. 8 ff.; *Antike Plastik Amelung*, pp. 183–191. Cf. also for the New York hydria, Lamb, *Greek and Roman Bronzes*, p. 163, pl. LIXa; Langlotz, *Frühgriechische Bildhauerschulen*, pl. 34; Payne, *Necrocorinthia*, pp. 219–220; V. H. Poulsen, *Acta A.* viii, 1937, pp. 15 f., Abb. 8.

<sup>27</sup> Aigion was much influenced by Argos. We hear of bronze statues at Aigion by Argive sculptors, representing Poseidon, Herakles, Zeus, Athena (Paus. vii, 23, 10), and of a beardless bronze Herakles by Ageladas of Argos (Paus. vii, 24, 4).

<sup>28</sup> For rosette on bronze disk of vase handle, cf. Perdrizet, *Fouilles de Delphes* v, p. 87, fig. 292 a, b. Pp. 87–89 discuss several other bronze vertical handles.



FIG. 7.—HYDRIA IN NEW YORK



FIG. 8.—HYDRIA IN NEW YORK



FIG. 9.—REAR OF NEW YORK HYDRIA



FIG. 10.—PROFILE OF NEW YORK HYDRIA



FIG. 11.—PROFILE VIEW OF FEMALE BUST ON  
HYDRIA FROM AIGION



not the epigraphical interest of the New York piece, but in compensation the style of the figure has more charm and beauty (fig. 11).

The New York vase has on the rim an inscription showing that it was a prize from the games of the Argive Hera, παρ' Ἑρας Ἀργείας ἀφέθλον. Several other examples<sup>29</sup> have similar inscriptions, which would seem to indicate that our vase, too, probably was a prize vase,<sup>30</sup> of Achaean workmanship, since Pindar is evidence for the production of such prizes by Achaean cities.

I publish here through the kindness of Miss Miriam A. Banks another such prize hydria, now in the Rhode Island School of Design in Providence (fig. 12),<sup>31</sup> which in shape reminds me of one from Aigina, with the inscription Πλάθον Ἐκεσθένης ἀνέθεν υἱοὶ Προκλέος Ἑλλανίοι Διί, dated by Harland between 480 and 460 B.C.<sup>32</sup> The Providence hydria (fig. 12) and the Aeginetan I should date about 470 B.C. The Rhode Island vase is of an earlier form, with lower, not off-set, neck and with lower plain handle, sturdier upper body, tapering toward a small foot of different form. There is a tongue pattern around the lip and a bead pattern on the top edge,<sup>33</sup> but the most interesting feature is the Boeotian inscription on the broad rim (fig. 13). It has the Boeotian form of alpha, with broken right bar, and the peculiar Boeotian use of iota for epsilon<sup>34</sup> in the unique unparalleled word ἀίθλον for ἀέθλων; τὸν Θέβαις ἀίθλον: "from the games at Thebes." The cross-barred theta continues in Boeotia much longer than in Attica and this vase may date in the fifth century, as late as 480 B.C. In any case, the Providence vase was a prize in games at Pindar's own town of Thebes.<sup>35</sup> It is likely that our vase too, even though unin-

<sup>29</sup> For other inscribed prize bronze vases, cf. *JHS*, xlvi, 1926, pp. 253 ff., pl. 14: Ἑρας Ἀργείας ἐμὶ τὸν ἀφέθλον; Walters, *Cat. of Bronzes in Brit. Mus.*, no. 257, ἐπὶ τοῖς Ὀνομάστου τοῦ Φειδίλεω ἀθλοῖς ἐθέθην; De Ridder, *Cat. des bronzes de la Soc. Arch.*, p. 9, no. 18: Ἑρετρίαθεν ἀθλων παρ' Ἡρακλέος *RA*, xix, 1892, p. 124; Πρακτ. 1890, p. 95; De Ridder, *Bronzes antiques du Louvre*, no. 2590, pl. 93; Fölzer, *Die Hydria*, p. 88, pl. 9; *Führer durch das Antiquarium, Berlin I, Bronzen*, p. 99, no. 30636. Cf. Pindar, *Ol.* vii, 841, and scholium, and *Nem.* x, 22, for bronze works, especially shields, as prizes.

<sup>30</sup> Such a prize hydria is represented in the hands of a flying Victory on a Nolan amphora from the Giudice collection in Girgenti, now in Oxford (1930.36), from the school of the Berlin Painter (ca. 470-460 B.C.). Cf. Beazley, *Der Berliner Maler*, no. 60; *CVA*, Oxford 2, p. viii. I have seen the vase itself, but no published illustration. Paus. iii, 21, 1, speaks of Ladas of Aigion winning the short race at Olympia; vii, 23, 5, of Strato of Aigion winning in the pankration and wrestling on the same day.

<sup>31</sup> The measurements are: total height with handle 0.393 m., height without handle 0.393 m. (these two measurements are the same, owing to the fact that the handle's curve is below rather than above the lip of the vase); total width with handles 0.389 m., greatest width without handles 0.34 m., diameter of lip from outside 0.022 m., total diameter of top 0.146 m., total diameter of the opening 0.101 m., diameter of the foot 0.146 m., height of rear handle 0.380 m., greatest circumference 1.064 m.

<sup>32</sup> *AJA*, xxix, 1925, pp. 76-78; cf. also *AA*, liii, 1938, 8-10, figs. 3-4. In the British Museum (from the Blacas collection, 67.5-8.719) is a bronze hydria of somewhat similar shape, with the neck curving into the shoulder and the round handle joining below the rim (ht. 0.385 m.). The label dates it 450 B.C. but it may be earlier. Miss Lamb, *Greek and Roman Bronzes*, p. 183, wrongly puts it in the late fifth or fourth century B.C. Cf. Fölzer, *Die Hydria*, p. 88, no. 180.

<sup>33</sup> Quite similar is the bronze hydria from Muschovitz, Filow, *Die Grabhügelnekropole bei Duranli in Sud-Bulgarien*, p. 89, fig. 111, dating from the early fifth century, B.C. (*op. cit.* p. 229).

<sup>34</sup> Cf. Roberts, *Introduction to Greek Epigraphy*, p. 212, no. 200, l. 17: Θιογένειος; p. 215, no. 217m: Θιαγένια (for Θεογένεια); *IG*, vii, 2418: ἀσεβιοντας for ἀσεβέοντας, etc.; Buck, *Greek Dialects*, pp. 20 (9, 2), 139, 197-205, θιός, ἀνέθιαν.

<sup>35</sup> In the Metropolitan Museum is a bronze handle from Thebes with a siren at the lower end, dating in the second quarter of the fifth century B.C. (09.221.12). Cf. Richter, *Greek, Etruscan and Roman Bronzes*, no. 80.



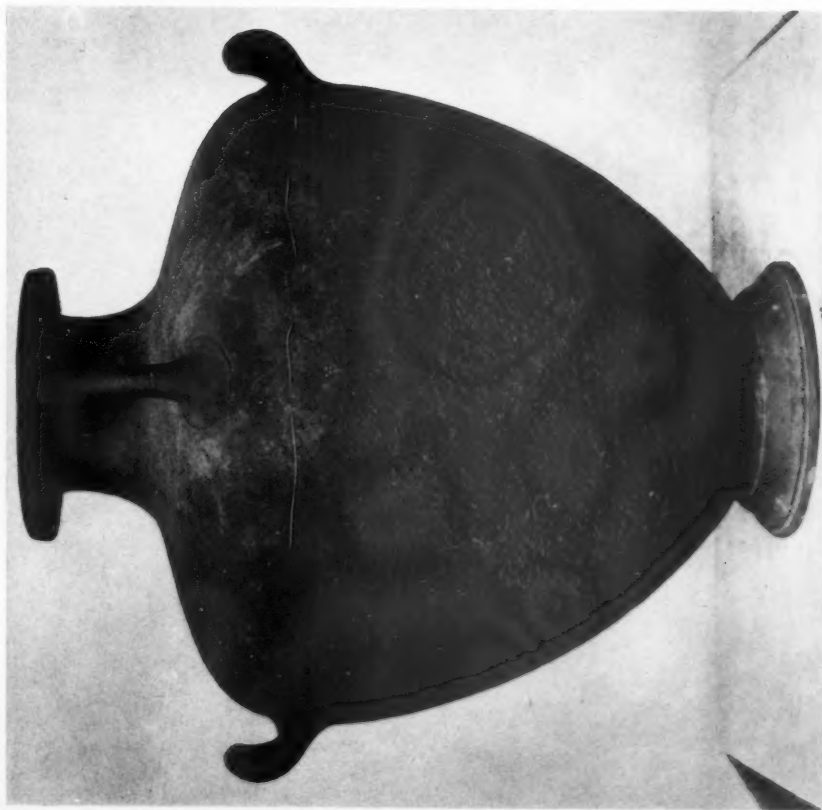


FIG. 12.—HYDRIA IN RHODE ISLAND SCHOOL OF DESIGN

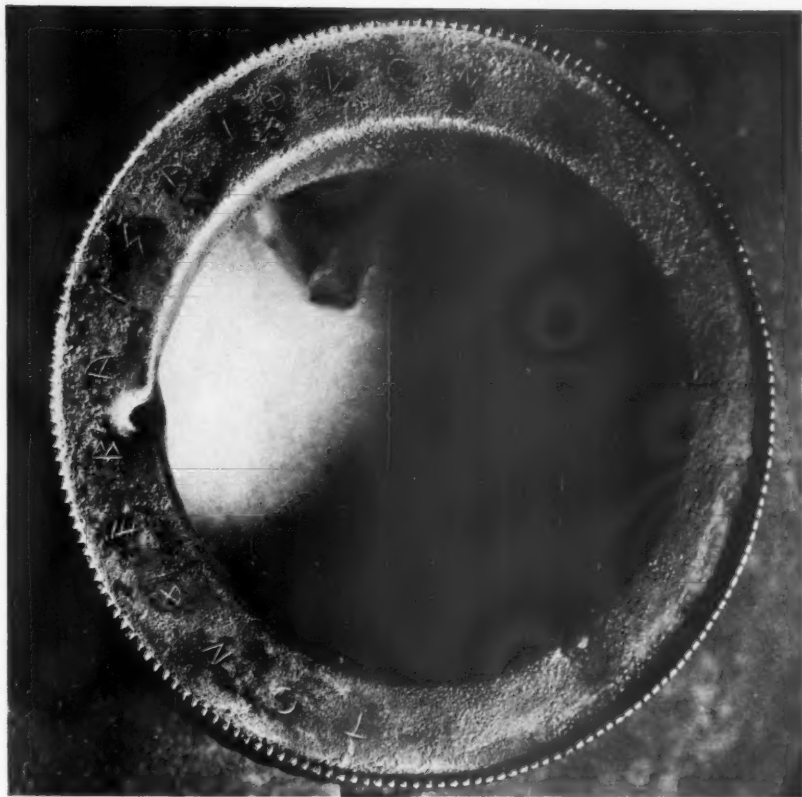


FIG. 13.—BOEOTIAN INSCRIPTION ON HYDRIA IN RHODE ISLAND SCHOOL OF DESIGN

scribed, was a prize. Kallimachos <sup>36</sup> speaks of κάλπιδες, οὐ κόσμου σύμβολον ἀλλὰ πάλης; and the scholiast to Pindar's *Nemean* x, 35 says: ἐν ἐπάθλου τάξει ὑδρίαὶ πλήρεις ἐλαίου.<sup>37</sup>

Hydriai were also used <sup>38</sup> as burial urns and ours was found in a tomb. So perhaps it was a prize vase, buried with the victorious athlete, or perhaps it even contained his cremated bones.

The Baltimore hydria is very similar to another hydria in Berlin (figs. 14, 15),<sup>39</sup> said to have come from Eretria, more similar to the Berlin vase than to the earlier hydria in New York, which has a body less oval and a female figure less advanced in style. The foot and side of the Berlin vase are missing. Quite different from our figure is the arrangement in five layers of the front hair almost in a top-knot and the continuance of this in a sort of braid over the middle of the top and back of the head. Our head is more graceful, but the Berlin vase probably was made in the same Greek bronze-foundry and does great credit to Greek casting. The busts on these vases show the high point to which the technique rose. Ours is such a finished product of this process that it would be difficult to find many better examples.<sup>40</sup>

An even closer parallel to the female bust and vertical handle of our hydria may be seen in a handle in the Boston Museum of Fine Arts (figs. 16-18).<sup>41</sup> It is a vertical handle of a hydria, showing (as in the case of our vase) the groove with which it was clamped and soldered on the rim of a hydria at the back. At the base, beneath a torus-like ring, is an elliptical piece with palmette and scroll design (fig. 18), which is very similar to the design on our vase in delicacy, in the hollowing out of the leaves, and in form. The upward curve of the handle is similar, the bands about the arms, the undecorated, obliquely set disks. The upper half of the figure is slightly different, but similar enough to enable us to say that it would seem to have come from the same bronze-foundry and to date about 460-450 B.C. The figure looks forward, not upward. The face and forehead are rounder and not so triangular. The eyes are larger and more open. The folds of the Doric peplos curving across the breast are

<sup>36</sup> Frag. 122.

<sup>37</sup> Cf. also Paus. i, 22, 7 and Fölzer, *Die Hydria*, pp. 13-14. *SIG.* 1055, 77 speaks of hydriai as prizes in the torch race, λαμπραδηφόρῳ νικῶντι ὑδρία. Hydriai are often mentioned in the temple inventories: cf. Fölzer, *op. cit.*, pp. 17-20. Add Robinson, *AJP*, lviii, 1937, pp. 40-44 (silver hydriai); *BCH*, lvii, 1938, p. 149 (bronze hydriai, krateres, and oinochoai as sacred dedications at Thespiiai); Homolle, in *DS*, s.v. *Donarium*.

<sup>38</sup> Cf. Paus. iv, 33, 5; ix, 30, 7; *IG*, xii, 1, 140; Schol. Soph. *EL*, 54 and the many literary and other references in Fölzer, *op. cit.*, pp. 15-17; also my article in *AJA*, xxxv, 1932, p. 402; *Olynthus* v, p. 126, no. 145, pls. 91-92.

<sup>39</sup> Height 0.50 m. Handle riveted, not soldered. Berlin Inv. 8064; *JdI*, iii, 1888, pp. 250-251, no. 6. The illustration on p. 251 shows a foot that does not belong. Furtwängler, *loc. cit.*, dates the vase in the third quarter of the fifth century. Polites in *Εφ.* 1936, p. 171, n. 2, in his important essay on archaic bronze hydriai, mentions it, even though it is not archaic, to support his idea of Eretria as a place of manufacture of tarentics. I owe the photographs and permission to publish them for the first time to my good friend, K. A. Neugebauer.

<sup>40</sup> Casson, *The Technique of Early Greek Sculpture*, p. 165: "It can safely be said, then, that Greek bronzework was a finished art by the early fifth century B.C."

<sup>41</sup> Inv. 99. 469. Total height 0.26 m. Bought at Corinth, but said to come from Palaionpolis (the site of Kleitor, the Arcadian town mentioned by Pindar, *loc. cit.* above). The patina varies from pale green to blue green. I am indebted to Dr. Lacey D. Caskey and Miss Grace Nelson for permission to publish the photographs.

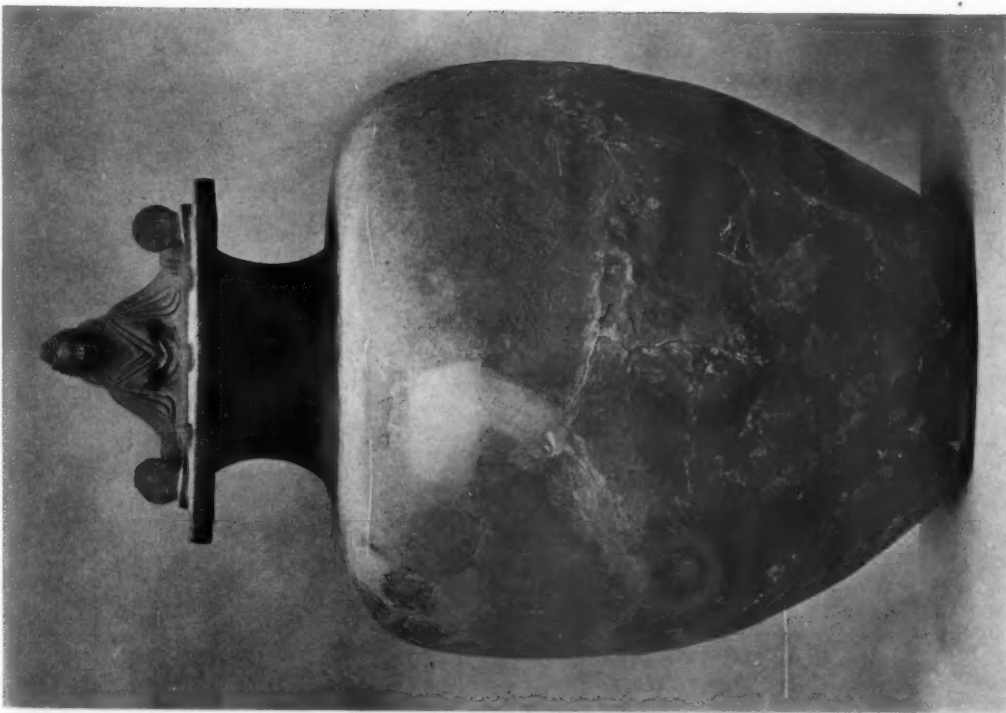


FIG. 14. — BRONZE HYDRIA IN BERLIN

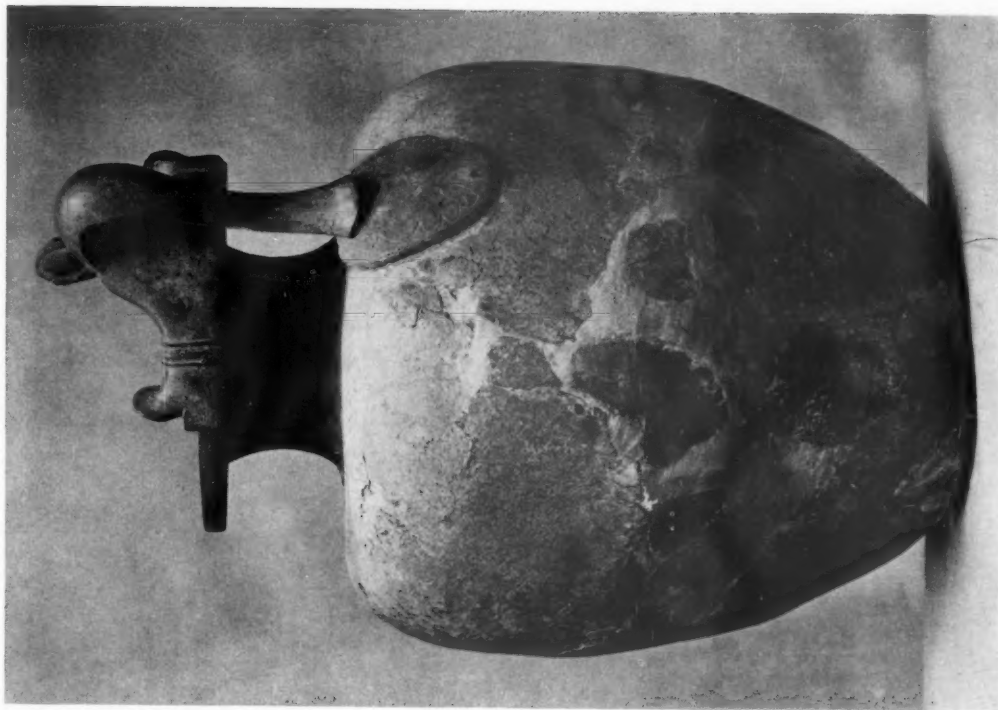


FIG. 15. — BRONZE HYDRIA IN BERLIN

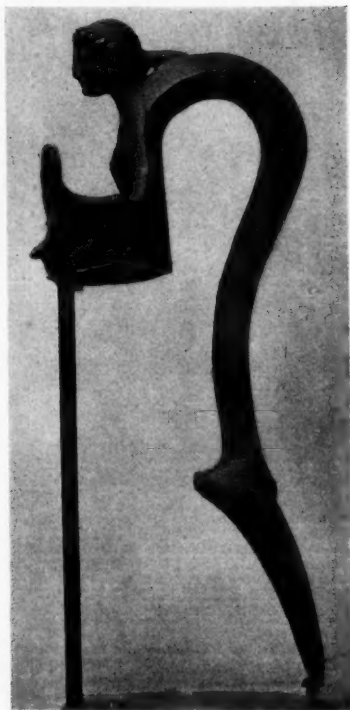


FIG. 17.—BRONZE HANDLE OF HYDRIA  
IN BOSTON



FIG. 16.—BRONZE HANDLE OF HYDRIA IN BOSTON

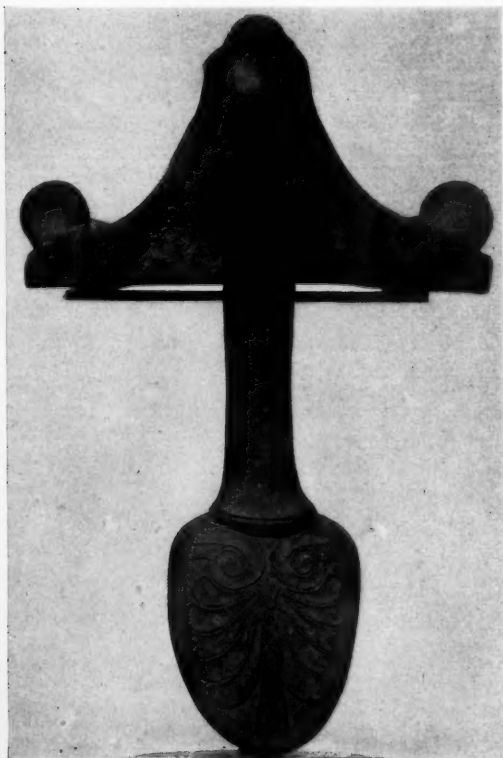


FIG. 18.—HANDLE OF HYDRIA IN BOSTON



FIG. 22.—BRONZE HANDLE OF VASE IN WALTERS ART GALLERY  
(By Courtesy of the Walters Art Gallery)

more numerous, with the upper edge folded over. The front hair is low in the middle and rolled back in a fashion somewhat similar to the arrangement of the hair on our figure. It is bound with a ribbon, and at the rear (fig. 17) flares out into the handle, so that there is no sharp break and the head is not set off separately as is the case on our vase.

The female bust is also used on the handle of a bronze oinochoe with bright green patina in the Museum of Fine Arts in Boston (figs. 19–21), which dates about the same time as our hydria (460–450 B.C.).<sup>42</sup> The lower end of the handle merges into the forepart of a winged siren, with a palmette below it. At the top is the bust of a woman facing to the front, and with a disk decorated with a *phiale* at either side on the rim of the vase. The hair of the figure is rolled up over a head-band and waved on top. Langlotz has pointed out that such a bust with rolled hair is characteristic of, but not peculiar to, Corinth. It is Peloponnesian, but not Argive. The vase is said to have been bought at Corinth. The small, neat features of the head differ from the fuller, heavier forms of Italiote figures<sup>43</sup> and recall those of Peloponnesian bronzes, such as the dancing girl in Oxford.<sup>44</sup> The style of the plastic figures on bronze vases has not been thoroughly studied as yet, but it is clear that the broad, simple, and rather heavy style of the New York hydria is that of Argos, rather than of Kleonai, to which Langlotz would attribute it. The rolled up hair is also characteristic of Corinth.<sup>45</sup>

#### DEVELOPMENT OF HANDLE ENDING IN FEMALE FIGURE

Bronze hydriai and oinochoai and amphorae seem to have been popular in the seventh century B.C., and especially in the sixth.<sup>46</sup> The idea of a female figure as an attachment to a bronze vase may have originated in the Orient, in the eighth century, or earlier, for the Germans have recently found at Olympia an oriental and a Greek attachment, dating from the seventh century, in the form of a winged combination of bird and female head—two of the oldest thus far found, and the prototypes of later handles or attachments in the form of a siren.<sup>47</sup> The Greek example is

<sup>42</sup> Boston 99.481. Height 0.28 m., diameter 0.14 m. Cf. *Ann. Rep. Mus. Fine Arts of Boston*, 1899, p. 139, no. 7; *Handbook of Mus. of Fine Arts*, Boston, 1937, p. 40; *RM.* xxxviii–xxxix, 1923–24, pp. 346–348, fig. 2; Lamb, *op. cit.*, p. 163; Payne, *op. cit.*, pl. 45, 5. Somewhat similar and closely related to the Boston oinochoe is one from the Argolid, in the Louvre, with siren at the base of the handle, female bust at the top and two disks on the rim. See De Ridder, *Bronzes antiques du Louvre* ii, pp. 114 ff., no. 2756, pl. 99; *RM. loc. cit.*, p. 346, fig. 1. In the Walters Art Gallery is a modern silver replica of the Boston vase.

<sup>43</sup> Payne, *Necrocorinthia*, p. 216, n. 1.

<sup>44</sup> *JHS.* xxx, 1910, pl. 13, 2, p. 233: "The simplicity of the action and of the folds of the garment, as well as the fashion of hair and face, seem to point to the school of Argos." But it may be Corinthian or Achaean.

<sup>45</sup> Payne, *op. cit.*, p. 220.

<sup>46</sup> For bronze oinochoai, cf. Jacobsthal-Langsdorff, *Die Bronzeschnabelkannen*. For example, in the Ashmolean Museum at Oxford (590, 1891), I have seen a sixth-century bronze hydria (bottom wrongly restored), with two side handles and a vertical handle with palmette-scroll design below and snakes' heads on the rim. There is no female head on the hydria, but on a bronze handle of an oinochoe in the same museum (from the Pourtales collection, 748 and Oldfield collection), besides the palmette-scroll design, there is a snake on the back of the handle, heads of snakes on the rim, and a female head at the top of the handle. The vase dates about 500 B.C.

<sup>47</sup> Cf. also *AJA.* xlii, 1938, p. 401, fig. 1; *Die Antike* xv, 1939, p. 37, figs. 22, 23, p. 38, figs. 24 and 25; *JdI.* lii, 1937, *Bericht über die Ausgrabungen in Olympia* i, pp. 72–76, figs. 33–38, pls. 20–21. On stylistic grounds and from a comparison with Corinthian vases, Hampe and Jantzen assign these handles to a Corinthian factory (p. 75).





FIG. 20. — BRONZE OINOCHOE IN BOSTON

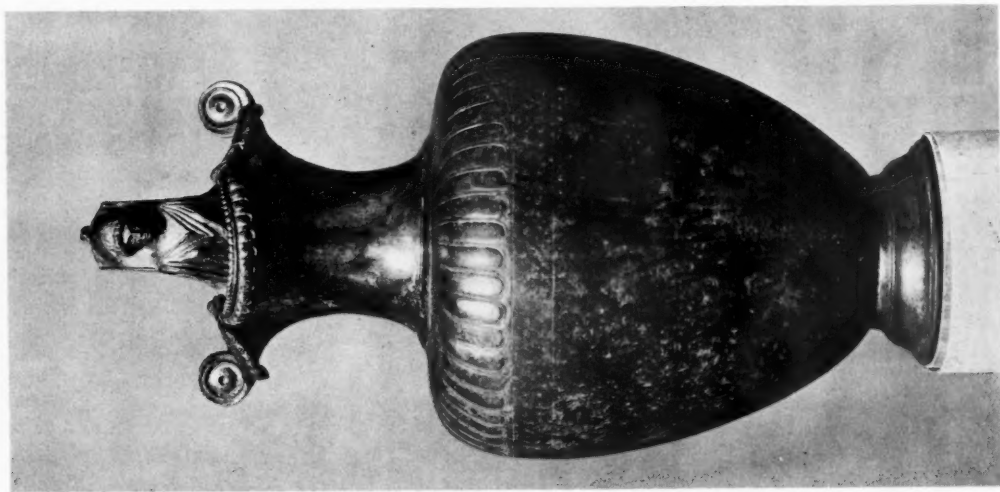


FIG. 19. — BRONZE OINOCHOE IN BOSTON  
(Courtesy of the Museum of Fine Arts, Boston)

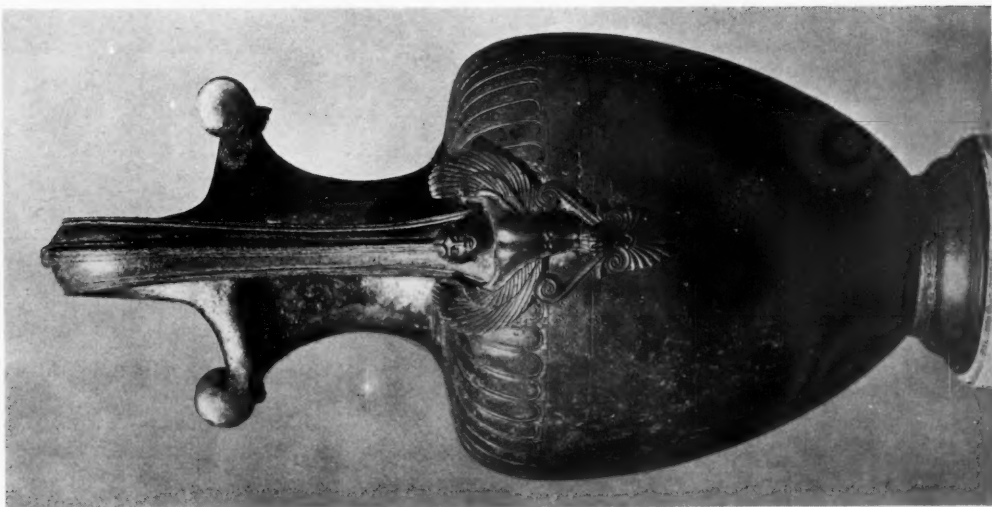


FIG. 21. — BRONZE OINOCHOE IN BOSTON

no mere imitation of the oriental face. It is full of life and quite different from the oriental example, with its repose. It forms a bridge between one in Athens from the Acropolis,<sup>48</sup> dating about 700 B.C., and another in Boston, from Olympia, dating about 670 B.C.<sup>49</sup> If these winged heads represent a kind of early siren, the Pindar fragment 104d, ll. 31 ff. may apply to the type: ὑμνήσω στεφάνοισι θάλλοισα παρθένιον κάρα, σειρήνα δὲ κόμπον αὐλίσκων ὑπὸ λωτίνων μιμήσομ' ἀοιδαῖς.

From the late seventh or early sixth century there are many horizontal handles of hydriai ending in female heads, as well as vertical handles with a female head at the base,<sup>50</sup> such as the one with four hanging locks on either side, at the base of the Telestas hydria mentioned above.<sup>51</sup> A beautiful hydria in Berlin (30884), with both bust and palmette at the base and lions on the rim above,<sup>52</sup> dates from the middle of the sixth century. From 540 to 530 B.C. we must date several bronze hydriai, or handles with a female bust at the base and with a ram on either side and lions at the top.<sup>53</sup> From this same period (540–530 or 520 B.C.), from which no terracotta hydriai are preserved, I should be inclined to date an archaic bronze handle in the Walters Art Gallery, which I am allowed to reproduce (fig. 22, see p. 184) by the courtesy of Mr. Morgan Marshall and the Walters Art Gallery. This is an archaic cast handle of a hydria from Corinth,<sup>54</sup> with a scroll-palmette at its base and at the top a female

<sup>48</sup> Cf. Hampe, *Frühe griechische Sagenbilder in Böotien*, p. 32, pls. 31, 40.

<sup>49</sup> Hampe, *op. cit.*, p. 33, fig. 16. Cf. *JdI. loc. cit.*, pp. 73–74.

<sup>50</sup> Three bronze handles with an archaic female head at the base or one end, found in Epeiros and dating about 600 B.C., are in Berlin (10.389), *AA.* xl, 1925, p. 179, fig. 3; 'Eφ. 1936, p. 154, fig. 6. In the Metropolitan Museum is a seventh-century bronze handle (East Greek) with a head at the base above palmettes and female figures on the rim (06.10.93). Cf. also 07.286.103.

<sup>51</sup> Cf. p. 173, and Neugebauer, *Antiken in deutschem Privatbesitz, Festschrift d. Vereins der Freunde ant. Kunst*, Berlin, 1938, pl. 25, no. 53. Cf. *AA.* xl, 1925, p. 186, fig. 5; 'Eφ. 1936, p. 153, fig. 5 (Nîmes, Maison Carrée), head at base with Dedalic features and three long locks on either side, snakes on upper part of handle, lions on the rim, end of seventh century, from Italy. De Ridder, *Bronzes du Louvre* (2645), ii, pl. 96 (from Greece) is similar, but dates about 600–575 B.C. Cf. also for archaic bronze hydria-handles, *Olympia* iv, pl. 54, 894–897; *AA.* xl, 1925, 176, and especially *JdI.* liii, 1938, II. Bericht über die Ausgrabungen in Olympia, pp. 122–123, pl. 54, a bronze handle with a female head at the base, reminding me of the Spartan runner (Langlotz, *Bildhauerschulen*, pl. 48), and dating earlier (600 B.C.) than the Berlin hydria (580–570 B.C.), similar to the Telestas head. Spartan influence is correctly seen in these early bronze handles by Künze and Schleif, *JdI. loc. cit.*, who also point out that the Nîmes and Berlin hydriai are hardly to be separated by fifty years ('Eφ. 1936, 152 ff.). Many of the oinochoai and hydriai of this period have a palmette at the base of the handle, no female bust, 'Eφ. 1936, pp. 159 ff., figs. 12, 13, pl. 2b. The addition of rams may not be earlier than 550 B.C.

<sup>52</sup> 'Eφ. 1936, p. 155, fig. 7; p. 156, fig. 8; *Stephanos für Wiegand*, fig. 2; *AA.* xl, 1925, p. 191, fig. 8. Cf. also the bronze hydria used as a burial urn, published by Orsi, *NS.* viii, 1932, pp. 142–145.

<sup>53</sup> 'Eφ. 1936, pl. I (mentioned above in n. 12), and p. 150, no. 2, pl. 3a (Petit Palais, Dutuit Coll., Paris, from Sala Consilina in Lucania); *NS.* 1897, p. 164, fig. 9; *AA.* xl, 1925, p. 193, fig. 9; Fölzer, *Hydria*, p. 69, no. 86; and 'Eφ. 1936, p. 150, no. 3, fig. 3 (Northwick Park, England); p. 151, fig. 4, pl. 3b (Heidelberg). Fölzer, *op. cit.*, p. 71, dates such vases in the second half of the sixth century B.C.; the Berlin *Führer (Bronzen)* about 500 B.C.; Lamb, *Greek and Roman Bronzes*, p. 134 (pl. 46 f.) in the last quarter of the sixth century. But Polites, in 'Eφ. 1936, p. 151, correctly places them between 540 and 530 B.C.

<sup>54</sup> Inv. 54, 776. From Canessa, 1906. Ht. 0.247 m. (9¾ in.). Wrongly labelled a jug. Published in *Le Musée (Revue d'Art Mensuelle)* iii, 1906, pp. 264–266, pl. XXXIX. P. 264 has a drawing of the back of the handle. There are also in the Walters Art Gallery a handle of a bronze jug with a satyr's head at the top and the bottom (54, 769), three fourth-century handles, with palmette at the base, from the Massarenti collection (54, 1214; 54, 1215; 54, 1216), and an Etruscan jug with handle ending in a ram's head.

head. The head has wavy hair, with vertical divisions and a peculiar triangular arrangement in the middle. It is bound with a bead-like fillet and there are two long locks at either side, with horizontal divisions. Two lines about the neck indicate a necklace. Down the center of the handle is a raised band with cross divisions, suggesting a snake. At either side of the rim-attachment is a vertical disk, with beading around the edge and on the exterior an incised rosette with fourteen petals and two concentric circles at the centre.<sup>55</sup> Under the grooved doubled rim are two holes for riveting the handle. The groove was used for fitting the handle on the hydria, as was the case with our hydria. The wavy hair, the triangle on the forehead, the central braid above the head, the round eyes with well defined eyelids not overlapping at the corners, the nose, mouth, and chin resemble the head on the hydria from Eretria in the National Museum at Athens (15137, cf. above, notes 12 and 53). The head also resembles a head on the hydria in the Petit Palais (cf. note 53). On these examples, the head is at the base of the handle, but on the handle in the Walters Gallery, it is on the rim. While there are disks on both, there is no bust, or arms ending in disks, as on our vase. This is perhaps one of the earliest examples of the use of a female head and disks on the rim of a bronze vase. Later artists chose the complete bust and arms ending in disks, a great improvement, creating a much more artistic production.<sup>56</sup> The hydria in the Petit Palais and most of the others mentioned above, as well as the handles, seem to be of Corinthian workmanship.

From about 530 B.C. comes a bronze hydria<sup>57</sup> in the National Museum in Athens (7915), found at Aigion, the site from which our vase was said to come. It has not been put together from two vases, as Neugebauer thought possible.<sup>58</sup> The palmette is of a later form and there is no female bust, but the lions resemble those of Corinth.

In the Metropolitan Museum is a bronze handle of an oinochoe with a female head and two disks at the top (22.139, 30), dating ca. 525 B.C. From the latter part of the sixth century, besides the Telestas hydria-handle with female bust, there is an important group of bronze oinochoai and hydriai, such as the example from Randazzo in Sicily.<sup>59</sup> The bodies and necks of the vases are of sheet bronze, like ours; the handles and feet are cast and soldered on. The finely cut palmette is already a distinctive feature. The horizontal handles sometimes end in lions'<sup>60</sup> or swans' heads;<sup>61</sup> the vertical handle is often in the form of a youth bending backwards. These bronze vases have been thoroughly and carefully studied by Neugebauer,<sup>62</sup> who attributes

<sup>55</sup> Cf. Perdrizet, *Fouilles de Delphes* v, p. 87, fig. 292a, b, and similar disks with rosettes on a handle from Greece in the Metropolitan Museum (*B.M.A.* xxxiv, 1939, p. 146, fig. 2; *A.J.A.* xliii, 1939, p. 190, fig. 1b; p. 191, fig. 2b), dated by Richter, 460–450 B.C.

<sup>56</sup> "C'est une charmante idée que celle de poser une tête féminine sur le rebord du vase; elle semble se mirer dans la nappe d'eau à l'intérieur de l'*hydrie*. C'est probablement l'image d'Aphrodite, de la déesse qu'invoquaient les jeunes Athéniennes qui se rendaient à la fontaine Kallirhoé puiser l'eau pour les rites religieux du mariage, en balançant sur leurs têtes les belles cruches d'airain brillantes au soleil." (*Le Musée* ix, 1906, p. 265).

<sup>57</sup> *Ep.* 1936, p. 163, no. 3; p. 165, fig. 16; p. 167, fig. 18; pl. 2a.

<sup>58</sup> *RM.* xxxviii–xxxix, 1923–24, p. 412, n. 3.

<sup>59</sup> Berlin 8467, Ht. 0.46 m. Fölzer, *Die Hydria*, no. 85; *RM.* xxxviii–xxxix, 1923–24, p. 344, no. 1; *A.A.* xl, 1925, pp. 197 ff.; *Ep.* 1936, p. 166, no. 2; Lamb, *Greek and Roman Bronzes*, pl. 46 b.

<sup>60</sup> Cf. *RM. loc. cit.*, p. 349, fig. 3.

<sup>61</sup> *Olympia* v, nos. 897, 897a.

<sup>62</sup> *RM. loc. cit.*, pp. 341–440. Cf. also Fölzer, *op. cit.*, p. 90; Berlin, *Führer*, p. 68.

them to southern Italy, or even to Tarentum, instead of Chalcis, which was formerly considered the source from which they were supposed to come. Our vases and many other bronze vases found in Boeotia and the Peloponnesos make it possible that neither Chalcis or Tarentum was the only place of manufacture. Thebes, Aigion and Corinth have equal claims. It must also be remembered that Greek bronzes and Greek artists travelled widely. Etruscan beaked jugs, dating about 500 B.C., have been found in Italy, Switzerland, Germany, Bohemia, Belgium, and France.<sup>63</sup> Thus, even the provenance of a Greek vase is not a safe criterion, since we know that there was close interrelation of Greek vases from different centers of production and that there were probably centers from which no vases have survived. With study and the discovery of new examples, we may hope some day to determine more closely the centers of fabric. Chalcis, even though associated with the word χαλκός, is never mentioned by Greek authors in connection with the production of bronze vases, nor is there any resemblance between bronzes from this site and Chalcidian terracotta vases. Few bronze vases have been preserved from any source, and of those few the provenance is rarely known. The fact that our hydria comes from Aigion therefore makes it of greater importance.

There are many more oinochoai than hydriai from the sixth century B.C., some with female heads on the handles, all with trefoil lip, which point to the northeast Peloponnese as a great center of the bronze industry.<sup>64</sup> In the Walters Art Gallery in Baltimore is a handle of a late sixth-century jug, with a male figure leaning backwards; a lion at either side on top; a ram at either side of the figure's feet, and a Medusa head below,<sup>65</sup> very similar in details to the Berlin hydria from Randazzo in Sicily, mentioned above.<sup>66</sup> The Berlin hydria, however, has a palmette instead of a Gorgon's head.

Bronze vases were certainly made at Corinth;<sup>67</sup> it is not an accident that so many of those preserved come from Corinth. Several have the female head and vertical disks.<sup>68</sup> Such vertical disks are often found on the rim of Corinthian olpai<sup>69</sup> and other vases of the early sixth century B.C. Disks and female heads imitating metal originals occur, for example, on Laconian III terracotta vases.<sup>70</sup> Female heads occur

<sup>63</sup> *AJA*, xliii, 1939, p. 194; Jacobsthal-Langsdorff, *Die Bronzeschnabelkannen*, pp. 13 ff., 61 ff.

<sup>64</sup> Cf. Lamb, *Greek and Roman Bronzes*, p. 136; Neugebauer, *RM. loc. cit.*, pp. 343 ff. Many come from Corinth or the Argolid, where hundreds of bronze mirrors were also manufactured. For oinochoai, cf. Athens 7586, from Corinth (Lamb, *op. cit.*, pl. 46 a; Payne, *op. cit.*, pl. 45, 1, 2, 6), with female head and disks at the top of the vertical handle on the rim; Louvre 2749 from the Argolid (De Ridder, *Cat. j.*, pl. 98), with lion's head and satyr's mask on the handle; Louvre 2750 from the Argolid (*ibid.*, pl. 98); one in Berlin from Naupaktos, probably imported from Corinth (*AZ.* xxxviii, 1880, p. 39). Parallels to the handles with its rest for the thumb are found in Protocorinthian and Corinthian vases (*RM. loc. cit.*, p. 361). <sup>65</sup> Inv. 54.912, from the Carmichael collection. <sup>66</sup> Cf. Lamb, *op. cit.*, pl. 46 b.

<sup>67</sup> Cf. Athenaeus v, 199e, Κορινθίουργεῖς, xi, 488d, definitely mentioning Corinthian hydriai, τὰς Κορινθιακάς ὑδρίας.

<sup>68</sup> Payne, *Necrocorinthia*, pp. 215, 326, no. 1405, pl. 45, 1, 2, 6; pl. 48, 10; Lamb, *op. cit.*, pl. 46a (from Corinth, now in Athens); De Ridder, *Br. de la Soc. Arch.* no. 32 (same handle motive as on a vase in St. Louis). The Boston one is later (fifth century). Cf. note 42 above.

<sup>69</sup> Payne, *op. cit.*, pls. 11 bis, 1; 12, 1; 13, 5; *CVA*, Robinson Coll. i, pl. XV, 5; Oxford, i, pl. V, 13, 14, 19, 20, etc.

<sup>70</sup> Cf. Dawkins, *The Sanctuary of Artemis Orthia*, pp. 84 (where the disks are called "buttons") and 95, fig. 65. Cf. also the oinochoe of the so-called "Pontic Type" in Albizzati, *Vasi antichi dipinti del Vaticano*, p. 81, fig. 29, pl. 21.



on Corinthian terracotta oinochoai<sup>71</sup> and even on Attic vases (b.-f. oinochoai<sup>72</sup> of the sixth century). Plastic heads are common on Corinthian pyxides,<sup>73</sup> and many bronze vases with plastic heads reveal Corinthian influence.<sup>74</sup> Many vases show a non-Italiote plastic style, especially the oinochoe in Boston, which, as Payne<sup>75</sup> says, "has its nearest analogies in Peloponnesian bronze work. There is a consistent contrast between the small neat features of heads like that illustrated by Payne on pl. 45, 5 [Boston] and the fuller heavier forms of the Italiote figures." Greek bronzes found recently at Trebenishte<sup>76</sup> in Yugoslavia show affinities not with S. Italy, but with Peloponnesian work, not only with Corinth, but with Aigion. They were probably imported from Corinth, Argos, or Aigion, or some other north Peloponnesian town.

There do not seem to be any bronze hydriai or oinochoai, with the handle ending in a bust at the top, which date after the fifth century B.C., so that perhaps the style died out after 425 B.C.<sup>77</sup> and more elaborate designs were used. In the fourth century B.C., groups such as Cupid and Psyche, Ariadne and Dionysos, Oreithyia and Boreas, were put at the base of the handle instead of a palmette, a siren, or a mask,<sup>78</sup> although a few examples of these still occur. Groups such as these were used even in Hellenistic and Roman times.

<sup>71</sup> Cf. Payne, *op. cit.*, pl. 42, 2-3 (St. Louis) and the bronze oinochoe from Corinth in Athens, *ibid.*, pl. 45, 6.

<sup>72</sup> Lau, *Griechische Vasenformen*, pl. XV, 1. Nikosthenes even put a plastic bearded head and a plastic female head under the spout (Hopplin, *Handbook R.-F. Vases*, pp. 254-255). Cf. *AJA.* xlv, 1941, p. 587.

<sup>73</sup> Payne, *op. cit.*, pls. 47-48. Plastic heads of mourning women are found on handles of terracotta vases from the end of the seventh century, excavated at the Dipylon in Athens, *JdI.* xlvii, 1932, p. 198, fig. 5.

<sup>74</sup> Cf. Payne, *op. cit.*, pp. 210-217, especially p. 215, where the bronze oinochoe from Corinth in Athens with plastic head at the top of the handle and disks is said to be Corinthian for "there is obviously a strong probability that a bronze vase from Corinth will be Corinthian." The bronze oinochoe in Athens (illustrated by Payne, pl. 45, 7) is also from Corinth. A very unusual Greek bronze oinochoe of the fifth century B.C., with the figure of a seated bearded Silenus with human legs at the top of the handle, holding a cornucopia in each hand, is illustrated in *MonInst.* v, 1855, pl. 52, and in Weicker, *Der Seelenvogel*, p. 131, fig. 157. Formerly in Venice, it is now in Budapest (cf. *RM. loc. cit.*, p. 352, no. 7). Similar is a bronze handle from Dodona, ending above in a seated Silenus, but with horse's hoofs. It is in Berlin and is illustrated in *RM. loc. cit.*, p. 351, fig. 4. Both date about 450 B.C., the second perhaps earlier. They may also be from some factory in the Achaean cities.

<sup>75</sup> *Op. cit.*, p. 216. Cf. *RM. loc. cit.*, p. 358, fig. 7: an oinochoe from Etruria, in Berlin, with a handle ending in a female bust at the top. The disks are next to the handle. It may be Etruscan Campanian, but surely imitates the work of Achaean cities, if it is not perhaps an original Achaean or northern Peloponnesian vase, dating a little later than the Boston oinochoe.

<sup>76</sup> Cf. Filow, *Die archaische Nekropole von Trebenishte*, passim, p. 34, fig. 31; for silver pins like those from Aigion, cf. Payne, *op. cit.*, p. 217, fig. 98 bis, and p. 221.

<sup>77</sup> In the British Museum is a bronze hydria, acquired in 1927 from Rhodes and dating ca. 425 B.C. It has a winged siren's bust at the lower end of the handle and below it a palmette and scroll design. The example published in *AJA.* xli, 1937, pp. 532-538, dates from the last quarter of the fifth century. It has Artemis seizing a deer as a scene at the base of the handle.

<sup>78</sup> Cf. Wiegand in *Anatolian Studies Presented to Sir William Ramsay*, pp. 405-413, especially the references on p. 407. The bronze relief of Cupid and Psyche (on the Berlin hydria) dates in the first half of the fourth century B.C. So also the specimen illustrated in Walters, *Cat. of Bronzes in the Brit. Mus.*, nos. 309-313, attributed by Kazarow, *AM.* xxxvi, 1911, p. 313, fig. 4, from Mesembria, but perhaps also of Achaean or Corinthian, rather than Euboean fabric; Furtwängler, *Sammlung Sabouroff ii*, pl. CXLIX (possibly end of fifth century); Reinach, *Ant. du Bosphore Cim.*, p. 94, pl. XLIV, 7; *Compte rendu St. Petersb.*, 1863, pl. X. Devambez, *Grands Bronzes du Musée de Stamboul*, 1937, in discussing



In the same grave with our bronze hydria was found a pair of gold earrings (fig. 23),<sup>79</sup> ornamented with rosettes, and a piece with a Medusa head (fig. 24) which seems to fit into the tube of one of them.<sup>80</sup> They consist of a disk with raised border, covered with a beaded wire and decorated on the sides with ribbed vertical lines. In the center is a raised rosette with six concave petals (possibly originally filled with enamel) and a knob in the middle, surrounded by spirals in beaded filigree. To the back (fig. 25) is soldered a plain gold tube. A wire is soldered to the lower side of the disks and a second wire ring to the mouth of the Medusa head. They show the very fine type of granulation and filigree work which is characteristic of the fifth century B.C. The design is better than what is found on contemporary Etruscan gold-work.<sup>81</sup> A gold ring is soldered on at the side of the "thimble" of each earring. A small chain, or more probably a fine cord, may have been passed through the earrings, so that the pair could be kept together. The smaller piece (fig. 25), with the Medusa head, also has a ring soldered over the mouth of the head of the Gorgon, this loop perhaps for the insertion of a pin to keep the earring in place. In the case of the New York disks there are remnants of silver pins inside the loops. This little Gorgon face also, to judge from the style, belongs to the first half of the fifth century B.C.



FIG. 25. — GOLD PIECE WITH MEDUSA HEAD, BACK OF EARRING

That these objects were earrings is now generally accepted, especially as they are often found in pairs. It might at first seem improbable that a Greek would have allowed his women-folk to stretch their ear-lobes into large dew-laps, pierced with half-inch holes to accommodate such things. But the earrings may have been attached by clippers, or screws or shanks, and hung

the hydria from Apollonia ad Rhyndacum, does not cite the hydria from Telos (Brit. Mus. no. 313) and other parallels. He compares the Tyche of Antioch and dates such hydrias too late. They date around 350 B.C. (cf. BrBr. 675). The reliefs copy silver reliefs, perhaps made at Kyzikos. Züchner will publish, we hope, his investigations on these fourth-century bronzes (*A.A. I.*, 1935, p. 365).

<sup>79</sup> Some have considered these objects buttons, or clips for a garment, but Kourouniotes in *AM.* xxxviii, 1913, pp. 297-298, demolished this theory successfully and brought forward arguments to show that they were earrings. An archaeological colleague of mine suggests "flute-caps," which might have been kept in a flute-case, such as the funny little pocket apparently attached to the flute-case slung over the boy-flutist's left arm, perhaps for flute-caps, as well as for mouthpieces and spare reeds, illustrated in Pfuhl, *MuZ.* iii, p. 94, fig. 329. Cf., for example, *FR.* pl. 93, where the flute-player carries a pair of flutes which have their caps; *CVA.* Robinson Coll., fasc. 2, pl. XIII; *FR.* pl. 80, 1, etc.; *DS.* v, pp. 307 ff., figs. 6950, 6951. Flutes were sometimes made from reeds, but fine flutes (like a bone and bronze one from Rhodes, in my collection, dating from Hellenistic times) were often of wood or bone, rarely of metal, and probably not of ivory till later times. The bone flutes may have perished and only the gold caps have been preserved. When double flutes are being played, they are never illustrated with caps. Others have suggested brooches or tops of pins like those in Filow, *Die archaische Nekropole von Trebenische*, pp. 82, 83, figs. 29-30. These are of bronze or silver and decorated with rosettes.

<sup>80</sup> The earrings are 0.026 m. in diameter on top, 0.022 m. in diameter inside. Ht. of sides 0.005 m. Ht. of tube 0.007 m., diameter 0.008 m. Ht. of piece with Medusa head 0.008 m. Ht. of tube below top 0.006 m., diameter of tube 0.007 m., of top 0.01 m. Ht. of ring 0.003 m., diameter 0.004 m.

<sup>81</sup> Cf. Marshall, *Cat. of Jewellery in the Brit. Mus.*, p. 137; Richter, *Handbook, Class. Coll. Metr. Mus.*, 1930, p. 330; *AJA.* xlv, 1940, p. 437. Such large disk earrings are seen even in Etruscan paintings and terracotta antefixes. Cf. Weege, *Etruskische Malerei*, p. 61, fig. 55; Duell, *The Tomba del Triclinio*, pl. 3.

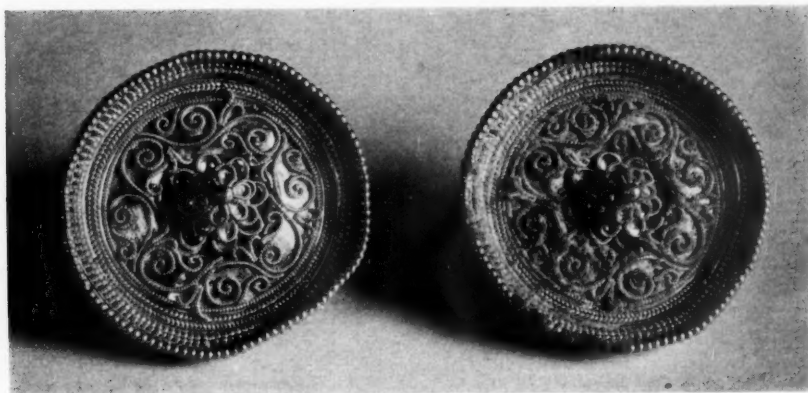


FIG. 23.—PAIR OF GOLD EARRINGS FOUND WITH HYDRIA FROM AIGION

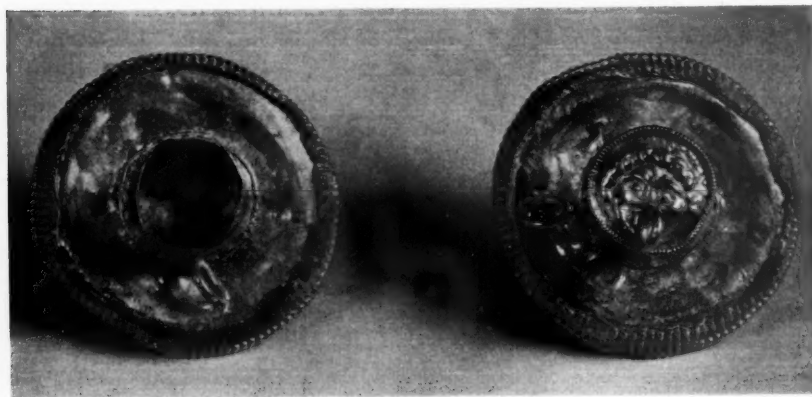


FIG. 24.—BACKS OF GOLD EARRINGS



FIG. 26.—MOULD FOR TERRACOTTA FIGURE OF CYBELE,  
FROM OLYNTHUS

on the ear-lobes, perhaps with other attachments. This would then be the purpose of the little gold rings soldered on the "thimbles" of the earrings.

An interesting problem is the date of the earrings. Earrings of this type have generally been dated in Hellenistic times, as it has been thought that gold jewelry was rare till Alexander's conquest of Asia Minor and such earrings do not seem to be as early as 450 B.C., the date of the vase. Of course, the hydria may have been an heirloom and not buried till the fourth century. But I believe that the earrings can be dated in the second half of the fifth century. Large circular earrings are represented even on the archaic female figures in the Acropolis Museum, on Boeotian terracottas, on representations of Athena, Arethusa and others on vases and coins.<sup>82</sup> Especially interesting in this connection is a beautiful terracotta mould (fig. 26) for a figure of Cybele, which I excavated at Olynthus.<sup>83</sup> It dates from the end of the fifth century and shows Cybele wearing over her ears two large circular earrings decorated with raised bead rim and in the center a rosette around which are spirals and palmettes, very similar to those of our two earrings. The mould confirms Kourouniotis' theory that they are earrings. Moreover, it shows that they sometimes, if not always, were so attached as to cover the lobes of the ears. In view of the Olynthian mould and the finding of the Aigion earrings with a vase of 450 B.C., the dating of similar gold earrings should be re-examined.

Earrings found in Eretria<sup>84</sup> are similar to ours in shape and decoration, though the decoration is raised and in high relief. They should be dated about the middle of the fifth century B.C. The *British Museum Catalogue of Jewellery*<sup>85</sup> is obviously wrong in dating such earrings in the fourth-third centuries B.C. The earrings from Eretria were found together with a red-figured lekythos in the style of the Achilles Painter, dating about 460-430 B.C.<sup>86</sup> This is welcome confirmation for the dating of our earrings from an unexpected parallel source. The Aigion hydria seems on external evidence to date ca. 450 B.C., and with it were these earrings. The Eretria tomb contained similar earrings and with them a lekythos supplying internal evidence for a date from 460 to 430 B.C.<sup>87</sup>

<sup>82</sup> Cf. references in Hadaczek, *Der Ohrschmuck der Griechen und Etrusker*, pp. 10-18; Payne, *Archaic Marble Sculpture from the Acropolis*, pls. 39-43, 49, 50, 55-58, 62-69, 72-80, 90-91, etc. Marshall, *Cat. of Jewellery in the Brit. Mus.*, p. 180; FR. pl. 6, the Achilles and Penthesilea kylix dating about 460 B.C. In the Metropolitan Museum are some large gold disks (13225-30) which may be Etruscan earrings of the sixth century B.C., though there is no ring attached as in ours.

<sup>83</sup> Cf. Robinson, *Excavations at Olynthus* iv, *The Terra-Cottas of Olynthus Found in 1928*, no. 410, pls. 51-54.

<sup>84</sup> Cf. pl. XXX, 1662, 1672, 1673; pl. XXXIX, 2059, 2060. These are supposed to come from Kyme (Aeolis), from a late fourth-century tomb (dated 300 B.C., *op. cit.*, p. XV), because a gold Alexander stater was supposed to have been found in the tomb. Marshall, *op. cit.*, p. XXXVIII, however, says: "It is uncertain how far this statement is correct." Even if correct, some of the earrings might have been heirlooms from an earlier period. This, unfortunately, has become the keystone for the dating of Greek jewelry.

<sup>85</sup> Cf. Beazley, *AV*, p. 380, no. 5.

<sup>87</sup> For such disk earrings cf. Hadaczek, *Der Ohrschmuck der Griechen und Etrusker*, p. 31, fig. 53 (in Berlin), p. 32, fig. 55, p. 37, fig. 65, p. 43, fig. 78; Cesnola, *Cyprus*, pl. XXV; NS. xii, 1915, p. 187, fig. 7; xiii, 1916, p. 16, fig. 18 (both with bent wire to go through the lobe of the ear); Minns, *Scythians and Greeks*, p. 195, fig. 88; p. 217, fig. 119 (perhaps of the fifth century B.C.); *AJA*, xlv, 1940, p. 435, fig. 7, p. 436, figs. 8-9, p. 437; Roland Jaeger, *Die Sammlung Eduard Gans* (Berlin Auktions Katalog, Dec. 11, 1928), p. 10, nos. 24 and 25 (pl. VII), now in New York City (7 Central Park West, room 249). These are much more elaborate than our earrings and date from Hellenistic times. The description of no. 24

From Aigion, though not from the same grave as our hydria, comes also the bronze oinochoe with trefoil lip <sup>88</sup> illustrated in figure 27. It has a high curving handle, with a palmette at the base, the tip broken (fig. 28). Two rivet holes for attaching the handle to the rim are preserved, but the horizontal piece of the handle is broken on either side. The lower part below the line, seen in figure 28, is restored. There was also a break in the inscription, which had been restored to read IEPIA. This seemed to indicate that there had been a priestess of the cult of Aigeus in Achaia and the Peloponnesos. That there should be a priestess of a god or of a male hero, would be remarkable, though the form  $\epsilon\pi\iota\alpha$  for  $\epsilon\pi\epsilon\iota\alpha$  would be possible.<sup>89</sup> The usual rule of Greek ritual, as Farnell says,<sup>90</sup> was that the male deity should be served by the male ministrant. Cleaning of the vase revealed (fig. 29) the fact that *nu* had been altered into *alpha* and that the original reading was IEP.N or  $\epsilon\pi\acute{o}\nu$ ,<sup>91</sup> the *omicron* having been lost. On the inside of the lip there is the inscription (fig. 30) ΑΙΓΕΟΞ. We have very few inscriptions of the fifth century from Achaia, but the forms of letters, especially the *epsilon*, with all horizontal bars of equal length, and the slanting *nu* point to a date about 450–440 B.C. This agrees with the date of this form of oinochoe with narrow neck, bulging body, and high curving handle.<sup>92</sup> The vase presents the first archaeological evidence so far found for a shrine of Aigeus in the Peloponnesos and at Aigion. It may be that Aigion was named from a surname of Poseidon, Aigeus, a sea deity and often associated and even identified with Poseidon.<sup>93</sup> Only in later times, perhaps, was it connected with the goat (αἶξ) which oc-

reads thus: "Die Scheibe ist mit Perl-, Kerb-, und gezwirnten Drähten aufs reichste dekoriert, in der Mitte hat sie eine buckelförmige, ebenfalls verzierte Erhöhung . . . Auf der Rückseite unten fünf Oesen, von denen drei noch die Anhänger bewahrt haben: an dünner Kettchen eine kleine nackte Figur, ein etwas grösserer Eros und ein winziges Filigran-scheibchen mit anhängender Kugelchenpyramide." Cf. also Marshall, *Brit. Mus. Cat. of Jewellery*, nos. 1662 ff.; Bassermann-Jordan, *Der Schmuck*, p. 23; Hadaczek, *op. cit.*, pp. 31 ff.; *JdI.* v, 1890, p. 94 (Dresden); Reinach, *Ant. du Bosphore Cim.*, pl. XIX.

<sup>88</sup> Height of vase 0.15 m., greatest height to top of handle 0.23 m., from bottom of palmette to top of handle 0.175 m. Greatest circumference 0.355 m., smallest circumference at neck 0.13 m. Diameter of opening at top 0.035 m.; from front of handle to front of lip 0.09 m. Greatest width of lip 0.075 m., narrowest width 0.04 m. Thickness of lip 0.003 m. Width of handle from 0.005 to 0.008 m. Palmette 0.03 m. high, 0.025 m. thick. Greatest width of inside circle of handle 0.052 m. From rivet hole to rivet hole 0.05 m. Height of letters on inside of lip from 0.013 m. ( $\sigma$ ,  $\gamma$ ) to 0.02 m. ( $\sigma$ ), Iota and epsilon are 0.015 m. high. Letters on outside vary from 0.01 m. ( $\epsilon$ ) to 0.017 m. ( $\rho$ ).

<sup>89</sup> Cf. Jebb, *The Fragments of Sophocles* ii, p. 113; Scholium to Euripides, *Or.* 261,  $\epsilon\pi\iota\alpha$ . Cf. also Bechtel, *Die Gr. Dialekte* ii, p. 879,  $\epsilon\pi\acute{\alpha}\nu\alpha$  for  $\epsilon\pi\epsilon\pi\acute{\alpha}\nu\alpha$ .

<sup>90</sup> *The Cults of the Greek States* iv, p. 33. Apollo at Delphi had a priestess and at Thebes Theokko, daughter of Hermaios, was priestess of Poseidon (ca. 300 B.C.),  $\iota\acute{\alpha}\rho\epsilon\iota\alpha$  Ποτειδάσωνι Ἐμπτυλήοι (*IG.* vii, 1. 2465). At Kalaureia there was probably a fusion of Poseidon's cult with that of Athena and the priestess of the latter officiated for the former also. Farnell (iv, p. 34, note a) calls attention to a priestess of Karneios Oiketas at Sparta in the late Imperial period who was also a priestess of Poseidon, Kore, and other deities. But "this lady-pluralist in the decadent days of Sparta was probably the heiress of priestly families whose male members had died off."

<sup>91</sup> It is interesting to find in Achaia the form  $\epsilon\pi\acute{o}\nu$  in place of the Doric  $\epsilon\pi\acute{o}\nu$ , due to Attic influence. The space between  $\rho$  and  $\nu$  has been filled with plaster and an iota cut in the plaster.

<sup>92</sup> Cf. the bronze jug (450 B.C.) from Galaxidhi near Delphi, Walters, *Cat. of Bronzes in the Brit. Mus.*, no. 2474.

<sup>93</sup> Cf. schol. *Il.* i, 404; schol. *Ap. Rhod.* i, 831. At Aigion was a bronze statue of Poseidon and a sanctuary of Poseidon, Paus. vii, 23, 10 and 24, 2.



FIG. 27.—BRONZE OINOCHOE FROM  
AIGION IN BALTIMORE



FIG. 28.—BACK OF BRONZE OINO-  
CHOE FROM AIGION



FIG. 29.—INSCRIPTION AS WRONGLY RESTORED

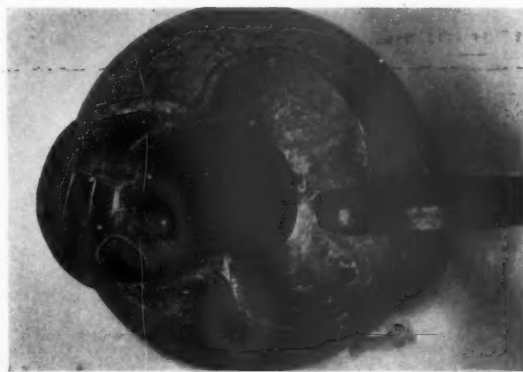


FIG. 30.—INSIDE OF LIP OF OINOCHOE FROM AIGION



curs on its coins.<sup>94</sup> Professor Harland even connects the words "Aegean" and Aigina with a root meaning "sea."<sup>95</sup> Servius<sup>96</sup> tells the story of Aigeus throwing himself into the sea when Theseus forgot to change the sails of his ship from black to white as he was returning from Crete. Others<sup>97</sup> said he threw himself from the Acropolis to the rock below, where a shrine was erected to him.<sup>98</sup> His was one of the statues of the eponymous heroes on the way up to the Athenian acropolis.<sup>99</sup> A gate<sup>100</sup> in the walls of Athens and a tribe were named after him.<sup>101</sup> A statue of him was erected at Delphi by Phidias. Aigeus became the father of Theseus at Troezen and deposited in a rock tokens of Theseus' identity,<sup>102</sup> a story commemorated in sculpture on the Athenian Acropolis. We do not hear of Aigeus elsewhere in the Peloponnesos.<sup>103</sup> There was a cult of Aigeus at Thebes and Pindar was an Aegeid.<sup>104</sup> In the fifth Pythian (v, 75 ff.) we have the lines:

ἴκοντο Θήρανδε φῶτες Αἰγείδαι,  
ἐμοὶ πατέρες

Then Pindar says that we, the Aigeidai, celebrate the city of Cyrene, to which Aigeidai went from Sparta by way of Thera. The passage has been much disputed. Recently Professor Rose<sup>105</sup> has again shown that Pindar is referring to himself. "He would remind the king (Arkesilas) that he and his are being praised not by a stranger, but by a relative of one of the leading clans in his own state." He belonged to the family of the Aigeidai who had helped the Herakleidai invade the Peloponnese.<sup>106</sup> Herodotos<sup>107</sup> also speaks of the Aigeidai at Sparta erecting a shrine to the Erinyes of Laios and Oidipous and of the same worship at Thera. The Aigeidai captured Amyklai.<sup>108</sup> Some of them settled at Sparta and became citizens. Of these, some migrated to Thera and from there to Cyrene. The information comes from Aristotle and Ephoros. Herodotos is unaware of the Theban origin of the Aigeidai, but Pindar, himself an Aegeid, in the seventh *Isthmian* knows that his fathers settled at Sparta. In view of the residence of Aigeus at Troezen and of the Aigeidai at Sparta, it is not surprising to find a cult of Aigeus at Aigion, perhaps influenced by that at Athens as well as at Thebes and Sparta.

Whether the inscription on our vase means a sacred object of Aigeus or a shrine of

<sup>94</sup> Cf. Strabo viii, 387 and Imhoof-Blumer and Gardner, *Num. Comm. on Paus.*, p. 89, pl. R XIV (JHS, vii, 1886).

<sup>95</sup> Cf. *Prehistoric Aigina*, pp. 45-50; αἰγες means "waves," according to Hesychius s.v. Cf. also Artemidoros, *Oneir.* iii, 12.

<sup>96</sup> On Vergil, *Aen.* iii, 74; Hyginus, *Fab.* 43.

<sup>97</sup> Plut., *Theseus*, 17, 22; Diodoros iv, 61. In Schol. Ap. Rhod. i, 831, Nikokrates says that he threw himself from the Acropolis into the sea, which is impossible since the sea is too distant.

<sup>98</sup> Paus. i, 22, 5; Harpocration and Suidas s.v. Αἰγείον, mentioned by the Attic orator Deinarchos; *AM.* xi, 1886, pp. 332 ff.; xiv, 1889, p. 63; Judeich, *Topographie von Athen*, p. 216. For the cult of Aigeus in Athens, cf. *REG.* iv, 1891, pp. 19 f. Keramopoulos (Δελτ. xii, 1929, pp. 80-82) ingeniously thinks the shrine of Aigeus was transferred from some rock near the sea (cf. *RE.* s.v. *Aigeus*) to the shrine of a hero ἐπὶ βλαύτῃ, which he found on the slopes of the Acropolis next to that of Aphrodite. Cf. *Hesperia* x, 1941, pp. 381-87.

<sup>99</sup> Paus. i, 5, 2.

<sup>100</sup> Plut., *Thes.* 12.

<sup>101</sup> Paus. x, 10, 1.

<sup>102</sup> Paus. i, 27, 8.

<sup>103</sup> There was another Aigeus, king of Elis, Diod. iv, 69. At Sparta was a heroön of Aigeus, son of Oiolykos, Paus. iii, 15, 8.

<sup>104</sup> Robinson, *Pindar*, p. 2; Wilamowitz, *Pindaros*, pp. 477-480; Farnell, *The Works of Pindar, Critical Commentary*, pp. 178-179.

<sup>105</sup> *CQ.* xxxiii, 1939, p. 70.

<sup>106</sup> Cf. Schol. Pind. *Pyth.* v, 75; *Isth.* vii, 15. Farnell, *Cults of the Greek States* iv, pp. 34-35.

<sup>107</sup> iv, 149. <sup>108</sup> Pindar, *Isth.* vii, 15, ἔλον δ' Ἀμύκλας | Αἰγείδαι. Cf. also *Il.* ii, 584.

Aigeus,<sup>109</sup> it certainly is evidence for a cult of Aigeus in Achaia, as well as another example of the bronze vases of Achaean cities referred to by Pindar.

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<sup>109</sup> In *Olympia* iv, pl. 50, 825 (not in vol. v on inscriptions) is a lebes on which cleaning has revealed the inscription  $\epsilon\pi\omicron\varsigma \Delta\iota\omicron\varsigma$ . In *JdI*, liii, 1938 (as cited above) p. 54, the inscription on a vase,  $\epsilon\pi\omicron\upsilon\nu$ , is interpreted as meaning the property of the priests or the Hellanodikai. On a bronze vase dedicated by the Eleans to Olympian Zeus (*ibid.*, pp. 104-105) we have  $\epsilon\pi\alpha \Delta\iota\omicron\varsigma$ , perhaps a nominative referring to some feminine Elean word for a vase or rather a neuter plural referring to a dedication of several vases. Perhaps on our vase  $\omicron\iota\nu\omicron\chi\omicron\iota\delta\iota\omicron\nu$  is to be understood with  $\epsilon\pi\omicron\upsilon\nu$ .

## SOME ANCIENT PORTRAITS

### PLATES XI-XII

#### I. PHILETAIROS

SOME years ago, during a visit to the provincial Museum in Como, my attention was attracted by a terracotta head of small dimensions but of unusual character. This head, which is of local provenance—i. e., it was found somewhere in Como, or on the shores of the lake—is reproduced here (figs. 1-2) in its original size<sup>1</sup>: it is notable not only for its unusual quality as a strikingly realistic clay portrait of small size, and for its bold and fresh modelling, but also for one technical detail: on its surface are preserved extensive traces of gilding, which was applied in thin leaves on a white slip. The Hellenistic character of both the style and the individual portrayed are evident. Moreover, the highly individual aspect of this man, even in iconographic details, allows a precise identification: it is a portrait of Philetairos, the founder of the Pergamene dynasty.

Only one portrait in the round is known thus far of this remarkable man. This is the marble head from Piso's villa in Herculaneum,<sup>2</sup> which has been identified on the basis of a comparison with the long series of Pergamene coins bearing the head of Philetairos (fig. 3).<sup>3</sup> In addition to the coins and to this bust, a poor but interesting bronze ring showing a profile head of Philetairos has been published recently (fig. 5).<sup>4</sup>

The outstandingly individual characteristics of the coins, the marble bust and the ring recur in the head from Como: the rounded and heavy appearance of the entire head; the inclination toward one side, which is indicated even in the ring, as well as on some of the coins; the broad cheeks and nose; the small eyes beneath contracted brows; the big ears; the small upper and the pursed lower lip; the sharply projecting chin. Furthermore, the Como head has an unusual detail—a laurel crown—which often distinguishes Philetairos on Pergamene coins (figs. 4, a-b). Thus, the head from Como is a new and quite important addition to our knowledge of Hellenistic portraiture. This is particularly true, since, in my opinion, unlike the bust from Herculaneum, it reproduces an authentic portrait of Philetairos.

In order to prove this point, it is necessary to give a brief résumé of the basic facts of a situation which is not without interest, as regards method, in the study

<sup>1</sup> I am indebted to the Direction of the Museo Civico in Como for having generously granted me permission to have the present photographs made and to publish this head. In an unforgettable last interview, shortly before his sudden death, the late Edward T. Newell, with his well known generosity, gave valuable assistance to this paper, including permission to publish the three coins, reproduced in figure 4. Mr. Sidney Noe greatly obliged me by providing this photograph.

<sup>2</sup> Comparetti-De Petra, *La Villa Ercolanese*, Turin, 1883, p. 276, n. 78, pl. 21, n. 2; Gercke, *Bonner Studien R. Kekulé gewidmet*, Berlin, 1890, pp. 139 f.; Arndt-Bruckmann, *Griech. u. Röm. Portraits*, pls. 107/8; Hekler, *Greek and Roman Portraits*, pl. 70.

<sup>3</sup> Imhoof-Blumer, *Die Münzen der Dynastie von Pergamon (ABA.)*, Berlin, 1884; v. Fritze, *Münzprägung von Pergamon (ABA.)*, Berlin, 1910, pls. 2-3, pp. 7 f., 24 f.

<sup>4</sup> Boehringer, *Corolla Ludwig Curtius*, Stuttgart, 1937, pp. 114 f., pls. 35 f. The gem reproduced by Boehringer on pl. 35, fig. 1, seems to me of doubtful identity.



FIG. 1.—TERRACOTTA HEAD IN COMO 1: 1



FIG. 2.—TERRACOTTA HEAD IN COMO 1: 1



FIG. 4.—COINS OF EUMENES I.  
NEWELL COLLECTION



FIG. 3.—BUST PORTRAIT OF PHILETAIROS. NAPLES MUSEUM



FIG. 5.—BRONZE RING. PRIVATE  
COLLECTION

of Hellenistic portraiture in general. The Pergamene coins, the only reliable basic source for the iconography of Philetairos, do not start until after his death, and continue to reproduce the profile head of the founder for about 130 years, from the beginning of the reign of Eumenes I to the end of the Pergamene empire. In themselves, they show quite an interesting stylistic development in ideal portraiture.<sup>5</sup> But, in all the later issues, this is a purely numismatic development, rather than one based on direct inspiration from portraits in other media. Only the initial issues of Eumenes I, produced around and shortly after 260 B.C., i.e., a few years after the death of Philetairos (in 262), can claim to have been based directly on major works of art. Yet the one or more portraits which the first die-cutters used as the basis for their concept of Philetairos, were hardly made during the lifetime of the first ruler. Philetairos died at the age of 80,<sup>6</sup> and throughout his entire reign of about twenty years he had been an old man. On the coins, however, he is shown from the beginning as a man in the forties or, at most, fifties. Inasmuch as it is not likely that there were sculptured portraits of a man who, until his rapid ascendancy to power, had been one of the innumerable officers of those troubled decades, it is evident that the coins are based on more or less idealized "apotheosis" portraits, created after his death. This is further indicated by the addition of the diadem, or the diadem and laurel crown, which occur on the coins from the beginning (fig. 4), contrary to the actual practice of Philetairos, who did not assume the dignity of a king, but persevered in regarding himself as a satrap of Seleukos. On the other hand, it is evident that, after his death, under Eumenes I, portraits of the deified founder of the new empire were made for Pergamon and other places, and that they could be used by the die-cutters.<sup>7</sup> Such portraits, nevertheless, had to be based on and to idealize lifetime portraits, e.g., honorary statues, which represented the ruler as the old man he was during his reign. The unusual laurel crown, which is often combined on the coins with the conventional diadem, may well have been borrowed by the die-cutters from existing authentic portraits—as it occurs, in fact, without diadem, on the Como head. Therefore, the coins issued by Eumenes I and bearing the head of Philetairos, are only more or less loose and indirect reflections of the actual features—and the style of portraiture—of his lifetime. Some of these coins, like the three fine pieces from the collection of the late Edward T. Newell (fig. 4), which are reproduced here, thanks to the unfailing generosity of their owner,<sup>8</sup> show varying degrees of naturalistic detail in the rich modelling of the face, with its deep folds and projecting cheek-bones and, above all, in the rendering of mouth and chin.<sup>9</sup>

<sup>5</sup> See note 3, and Pfuhl, *JdI*, 45, 1930, pp. 9 f., pl. 4, nos. 1–4; Hill, *Select Greek Coins*, London, 1927, pl. II, fig. 1; Stier, *Aus der Welt des Pergamon Altars*, Berlin, 1932, p. 63, figs. 20/21; Hinks, *British Museum, Greek and Roman Portrait Sculpture*, London, 1935, pl. 12 b; E. T. Newell, *Royal Greek Portrait Coins*, New York, 1937, pp. 35 f.

<sup>6</sup> Pseudo-Lucian, *Macrobioi*, ch. 12. For Philetairos, in general, see: Hoffmann, in *RE*, s.v.

<sup>7</sup> For a statue of Philetairos erected by Eumenes, compare the base from Delos, *IG*, ii, pt. 4, no. 106. A statue of Philetairos is mentioned as being in an exedra in Pergamon, in the important inscription *S.Or. Gr.* no. 764, l. 36. In spite of the many doubtful points in the restoration of this document, this statue is evidently different from the group of Philetairos, Eumenes (I?) and Attalos (I?) mentioned in lines 19 f.

<sup>8</sup> See note 1.

<sup>9</sup> A similar type also shows traces of the old-age portraits made during Philetairos' lifetime (according to Pfuhl, *op. cit.*, p. 10, no. 2, showing "Alterslockerung"); v. Fritze, *op. cit.*, pl. 2, no. 4.



These details, though mitigated by the generally idealizing character of the coins, are more closely related to the head from Como than to that from Herculaneum.

The bronze ring from Pitane (fig. 5), as Mr. Boehringer has pointed out, is undoubtedly a work contemporary with the lifetime of Philetairos. Such a modest work as this can only have been made while the ruler was still living. A possible alternative might be that it was made for a descendant of the family who wished to have a portrait of his ancestor on his ring. But, in that case, one would expect a much higher quality of workmanship, whereas during Philetairos' reign people who were particularly attached to him, though of low rank and of modest means, might well have worn such a ring. Therefore, in spite of its poor quality, the evidence of this small monument is not unimportant. As one would expect, it shows a rather old man and, in this respect, it bears an even closer resemblance to the head from Como than the best of the early coins. Particularly remarkable is the similarity of the outline of the mouth, chin and neck. On the ring, too, the hair does not show the conventional stylization of an all-over pattern of small curls which we see on the coins, but a rather fluid, vertical mass, comparable to the rendering found on the terracotta head. Only in its lack of distinction between the sharply projecting forehead and the deep root of the nose, does the superficial modelling of the ring deviate from the Como head, as well as from the coins and the Herculaneum bust.

As a result of these comparisons, it would seem that the new head is more reliable than any other portrait of Philetairos. Apparently it is close to the archetype from which the contemporary ring, as well as the posthumous portrait or portraits which, in turn, inspired the coins, may have been more or less indirectly derived.

The head from Como shows marked characteristics of old age: the flabby masses of fat and the skin, with its folds, are in sharp contrast to the projecting bones; on the other hand, the head is animated by a vigorous and dramatic expression, as well as by a rich and bulging surface modelling. In all these respects, the Como head—in spite of the clearly recognizable identity of the man—stands in strong contrast, not only to the more or less idealizing coins, but also to the famous bust from Herculaneum. This bust, indeed, offers a strange problem to the art historian. As the only previously identified portrait of the founder of the Pergamene dynasty, it has become part of the paraphernalia of illustrated books on portraiture and Hellenism. But Eduard Gerhard's sharp eyes looked at it with the result that he labelled it as "a mediocre head with mediocre features."<sup>10</sup> The most recent study, the only one in which an attempt has been made to trace the history of Hellenistic portraiture in sculpture and on coins, contains a discussion of this bust, which is based on the assumption that it reproduces a contemporary statue of Philetairos.<sup>11</sup> Its author must

<sup>10</sup> Gerhard-Panofka, *Neapels Antike Bildwerke*, Stuttgart, 1828, p. 116, no. 408, quoted by Gercke, *op. cit.*

<sup>11</sup> Pfuhl, *op. cit.* Accepted by Suhr, *Sculptured Portraits of Greek Statesmen* (*The Johns Hopkins University Studies in Archaeology*, 13), Baltimore, 1931, p. 170. The illustration in Pfuhl's article, fig. 5, reproduces the photograph in reverse and, thus is not only useless, but misleading. The right ear is restored. Wace, *JHS*, 25, 1905, p. 89, has already pointed out the impossibility of placing the head in the third century B.C. The absence of the diadem, which he felt should exist on posthumous portraits, as well as on the coins, in my opinion, creates no difficulty. The motive of the statue (officer) is apparently based on authentic iconographic tradition and aims at being historically faithful, while the coins represent the deified ancestor and founder.

state, however, that the style of this head is different from that of other early Hellenistic portraits of rulers, such as Seleukos Nikator, Ptolemy Soter and Lysimachos. He recognizes here an "Attic" inheritance. But the smooth, undifferentiated modeling of the face, the dry and rigid rendering, which contrasts so strangely with the tenseness of the twisted position, and the easy decorative lines of the flatly chiselled hair have nothing in common with the loose and florid manner of the various Attic masters of the late fourth century. The dilemma did not escape Gercke,<sup>12</sup> when he first identified the head of Philetairos, yet, at the same time, recognized in the Naples bust the work of a Neo-classical sculptor of the first century B.C. The contrast of the Neo-classical style of the Naples bust with the Pergamene taste of the period of Philetairos becomes obvious, indeed, if one compares it with the vigorous portraits of Seleukos I which Philetairos himself put on his first Pergamene coins.<sup>13</sup> In addition, it is obvious that the man represented in the Naples bust is not older than forty or fifty.<sup>14</sup> This would date the type in the period preceding Philetairos' ascendancy, and it has been already stated that portraits from that age can hardly exist. Obviously, therefore, we have here a posthumous, idealized portrait of Philetairos. Like the later coins of Pergamon, it is based on iconographic details—such as the characteristically twisted attitude—drawn from earlier works. On the other hand, it is evident that this herm-bust in Naples copies part of an earlier statue. Inasmuch as its connection with Piso,<sup>15</sup> dates this copy in or before the mid-first century B.C., and inasmuch as new statues portraying Philetairos were hardly created after the end of the Pergamene kingdom, the prototype of the Naples bust should belong to the period after 262 and before 133 B.C. Throughout this period the popularity of the Philetairos portrait in Pergamon as a symbol of the state is documented by its persistent appearance on the coins. There is epigraphical evidence, too, for the erection of new statues of the founders, including Philetairos, under the very last of the Pergamene kings, Attalos III Philometor.<sup>16</sup> The expansion of the cult of the deceased rulers is visible in the history of the center of this cult in Pergamon.<sup>17</sup> The strongly classicistic style of the Naples head makes it probable that its model was a statue erected after the middle of the second century B.C., in the course of a rising wave of Neo-classicism, in which Pergamon had an important part.

The terracotta head in Como, on the other hand, is a faithful portrait of the old, rugged and reckless *condottiere* who, in the chaotic period of the diadochi, stole a kingdom for himself and bequeathed it to his nephew.<sup>18</sup> Stylistically, too, it fits the

<sup>12</sup> *Op. cit.*

<sup>13</sup> See, Newell, *Coinage of Philetairos*, (NNM. 76, 1936), pp. 22 f., pls. 7 f., especially, pl. 10, n. 2.

<sup>14</sup> Rightly, Gercke, *op. cit.*

<sup>15</sup> Bloch, *AJA.* 44, 1940, pp. 485 f.

<sup>16</sup> *S.Or.Gr.*, no. 764, ll. 10 f.; compare above, note 7.

<sup>17</sup> *Altertümer von Pergamon* 9, Berlin, 1937, pp. 79, 85 f.

<sup>18</sup> For a discussion of Philetairos, see the judicious article by Hoffmann, quoted in note 6. The gossip stories about his allegedly low descent and his eunuchoid character have long been abandoned by historians as apocryphal, and should not be repeated by archaeologists, as Pfuhl, *op. cit.*, p. 10 and Hinks, *op. cit.*, p. 11 do. But the flabby features of the old man, visible in our head in Como, may well have contributed to the origin of this gossip. On the other hand, it is all to the good to admire the ancient Greeks in general. And it is also nice to own a ring bearing the portrait of a Hellenistic ruler. But to ex-

period of the second artistic generation of the third century B.C. In spite of its richness, the bulging surface modelling still shows a clear organization of dominant and subordinate features, in contrast to the fluid and pictorial rendering of mass characteristic of the period of Pergamene "Baroque." Like the disorderly rendering of the hair, this quality is in harmony with the results of G. Krahmer's brilliant study of the sculptural styles of Hellenistic heads.<sup>19</sup>

The terracotta head in Como is broken from a miniature bust or statuette. In either case, it is obvious that this was a reduced copy of a major work of sculpture. That its model was a bronze statue is evident from the gilding which was applied to the surface of the terracotta copy. It seems likely that this very copy is a Hellenistic, i.e., Pergamene work. As far as I know, faithful small terracotta copies of famous statues are known only from the Hellenistic age.<sup>20</sup> The fact that in this head we have a Hellenistic replica of a contemporary, or somewhat earlier, work adds considerably to its value.

This modest Hellenistic terracotta portrait of a famous personality of the past must have been brought to northern Italy by a Roman collector. It has recently and convincingly been pointed out that it was during Piso's administration in the East that he acquired the bust of Philetairos which was found in his villa.<sup>21</sup> What about the terracotta in Como? Its exact provenance is not known. But, as I have been assured, like the other finds with which it is exhibited, it certainly is a local find. It is tempting to suggest the name of its Roman owner, though such a suggestion is, of course, pure speculation.

One of the largest landowners on the shores of Lake Como was the younger Pliny. He owned a number of villas there, two of which he describes briefly in one of his letters (*Ep.* ix 7).<sup>22</sup> In view of the large size of estates of this kind in that period, he must have owned a considerable part of the seashore surrounding the lake, and the chance that finds from the vicinity of Como actually come from one of his estates is not so slight as it might seem at first sight. Pliny and his circle were intensely interested in collecting portraits of various kinds, as several of his letters show.<sup>23</sup> In addition, Pliny spent a considerable time in administrative business in precisely the region where he could most easily have acquired such an authentic Hellenistic portrait. On his way from Rome to Bithynia he stayed in Pergamon.<sup>24</sup> After this, he traveled to a number of places in northwestern Asia Minor which had been intimately con-

hibit oneself as a loyal admirer of just this type of historic personality, as Boehringer, *op. cit.*, p. 117 does, goes too far!

<sup>19</sup> "Hellenistische Köpfe" (*Nachrichten der Ges.d.Wiss.zu Göttingen*, N.F., I, no. 10), Göttingen, 1936, pp. 217 f. Compare, my review, *CW*, 32, 1938, pp. 46 f., and R. Horn, *RM*, 52, 1937, pp. 140 f. The head fits well into Krahmer's classification of the second phase of the third century B.C., between the Asklepios from Munychia (*op. cit.*, pl. 2, fig. 5) and the Pseudo Seneca (*ib.*, fig. 7), i.e., a date in the decades around the middle of the century. Probably it should be dated in the last years of Philetairos' reign.

<sup>20</sup> Compare, especially, the Hellenistic terracotta portrait of a Ptolemy in Dresden (height: 6.5 cm.): Watzinger, *Die griechisch-ägyptische Sammlung Ernst von Sieglin* 1, Stuttgart, 1927, no. 4a, p. 10, Blatt 1.

<sup>21</sup> Bloch, *op. cit.*, p. 402.

<sup>22</sup> § 2: "huius in litore plures villae meae, sed duae maxime ut delectant, ita exercent." See: Lehmann-Hartleben, *Plinio il Giovane, Lettere Scelte con commento archaeologico*, Florence, 1936, pp. 42, 57 f.

<sup>23</sup> *Ep.* 1, 17; 4, 28; 3, 7, 8; 10, 74. *Op. cit.* (note 22), pp. 62 f.

<sup>24</sup> *Ep.* 10, 17, 1.

nected with Pergamon. Among others, he visited Amastris, the home of Boa, Philetairos' mother.<sup>25</sup> All these circumstances would afford a quite reasonable explanation of the otherwise surprising existence of this unusual piece in its present location. The reader may consider the suggestion that Pliny was the owner of this portrait only a vague possibility. Nevertheless, it illustrates the process by which such a work came from Asia Minor to northern Italy, and thus preserves for us the features of a Hellenistic king and the style of a remarkable work of art.

## II. PORTRAIT OF AN EARLY ROMAN POET

The Albright Art Gallery in Buffalo owns an early Roman portrait statue which, aside from being a masterpiece of rare quality, is of great importance for the history of Roman art because of its early date, its style, and its technical details<sup>1</sup> (plates XI–XII, figs. 6 to 12).

This statue, known to experts in Rome for several decades, was in a private collection in New York for some time, before its purchase by the Gallery. It is said to have been found on the Via Appia. Its preservation is excellent. With the exception of the plaster restoration of part of the chin and the fill of a break near the neck on the right shoulder, the statue as it now appears is ancient. Aside from the broken nose and part of the drapery on the right hip, only minor damages exist in the preserved parts. They include edges of the drapery, a part of the scroll held in the left hand, the index finger and the top of the thumb of this hand.<sup>2</sup> The major loss is the right arm and its attribute. The two feet and the seat, of which only the fore-corners of a tasseled cushion are preserved, were originally carved from a separate block which is now lost.

The size of this figure of an elderly man is somewhat unusual: it is slightly less than life size.<sup>3</sup>

The material is Greek, probably Pentelic, marble. The back, including the head, is neglected in detail; evidently it was not meant to be seen. Therefore, the statue probably stood in a niche. On the other hand, the weathering caused by rain is particularly strong on the horizontal parts of the drapery over the thighs, and points to an original position in the open air,<sup>4</sup> i.e., in a niche on the outside of a building or monument.

The major part of the statue is composed of two ancient, separately made pieces. One of these includes the two legs, most of the drapery, and the left hand; the other the entire upper part of the body. Because of the character of the material, the weathering and the exactly fitting surfaces, the head certainly belongs and was

<sup>25</sup> *Ep.* 10, 98, 9; *op. cit.* (note 22), pp. 17 f.

<sup>1</sup> The statue was acquired in 1936. I am greatly indebted to Mr. Gordon Washburn for permission to publish the statue. He has also generously enabled me to investigate the technical details of the statue. He and his assistants have been most helpful, too, in the complicated work of restoring what is preserved of the figure adequately and in correcting a faulty previous restoration. The illustrations reproduced here are selected from a considerable number of photographs, which the Albright Art Gallery has kindly provided for study and publication purposes.

<sup>2</sup> A simple, oval-shaped ring is on the ring finger.

<sup>3</sup> Preserved height: 1.18 m.; chin to hair on forehead: 0.187 m.

<sup>4</sup> In addition, many small round holes visible in the illustrations are scattered over the surface. They are apparently due to the effect of vegetation upon the statue after it had fallen down.





FIG. 6. — PORTRAIT STATUE IN BUFFALO. RIGHT PROFILE VIEW



FIG. 7. — PORTRAIT STATUE IN BUFFALO. LEFT PROFILE VIEW



probably carved from the same block. It had been broken at the lower edge of the neck and was replaced by a modern restorer, who filled the partly destroyed joints with plaster. Thus, in ancient times the statue was built up in three blocks, the upper two of which, with the exception of the right arm, are well preserved. This technique is unusual. In fact, in this precise form, it is quite unique, as far as I know. Therefore, it is worth while to mention the curious details of the process. The lower of the two preserved sections ends at the lower edge of the drapery and, towards the rear, in the two smooth lower faces of the corners of the cushion (pl. XI, figs. 6–8, 10). At the left side, a free piece of drapery and the left leg hang downward from this edge to about the line at which the drapery covering the right leg ends. The present end of the left leg (fig. 10) has preserved part of the ancient smooth cutting where it joined the now missing lowest block of the statue. The corresponding cutting is completely preserved on the right leg (*ib.*), and in its center is an ancient dowel hole, still preserving traces of the hook-shaped end of an iron dowel, by means of which the right foot was fastened to this joint.<sup>5</sup> Probably a similar dowel hole existed at the lower face on the left leg, a considerable part of which is now broken away. The base block thus joined the preserved lower block at these two points and was fastened to it by means of two iron dowels. Toward the rear, this part of the statue was inserted into the front corners of the seat, joining it, or rather leaning against it, with the lower and rear cuttings of the cushion corners (figs. 6–8). All four of these smooth joints are preserved intact. They have no dowel holes. To increase the stability of the figure, the lower horizontal planes of the cushion are inclined towards the center at both corners—an unrealistic detail which is invisible when one stands opposite the statue (pl. XI) and the vertical cutting at the right side has an oblique line, too (fig. 6). In this way, the block was, so to speak, wedged into the base block, hence the lack of dowel holes here. The hollow interior of the block (figs. 10–11) is roughly chiselled, with the clear intention of reducing the mass of the stone as far as possible. The upper edge of this lower block (fig. 11), passing the drapery from both sides (figs. 6–7) in an oblique course, divides nude parts of the body from edges of drapery wherever they are visible from the front (pl. XI). The uncovered part of the left arm and all the drapery on the lap are included in the lower block, while the drapery over the left arm and the nude abdomen end at the lower joint of the upper block. It is evident that, as far as the front view was concerned, the artist tried to have the joints coincide with edges between drapery and nude parts. From this sophisticated arrangement, it is clear that he did not trust his ability to piece together the separately carved parts of the statue so well that the joints would entirely disappear. In fact, they are nowhere very exact. On the other hand, it is evident that the statue was intended to be placed in the niche in such a way as to be seen only from the front. The upper face of the lower block (fig. 11) shows careful preparation of the joint, with a narrow, smooth outer edge and a kind of anathyrosis brought about by claw-chisel work. The upper part of the statue joins the front of the lower preserved block in the manner which has just been described. In the rear, it was posed on the lost base block, i.e., on the seat which it joined at the lower edge of the drapery (fig. 8).

<sup>5</sup> This is the dark hole ( $0.02 \times 0.026 \times 0.02$  m.) visible at the right end in fig. 10. Next to it there is a small modern dowel hole, filled with plaster from a previous restoration.

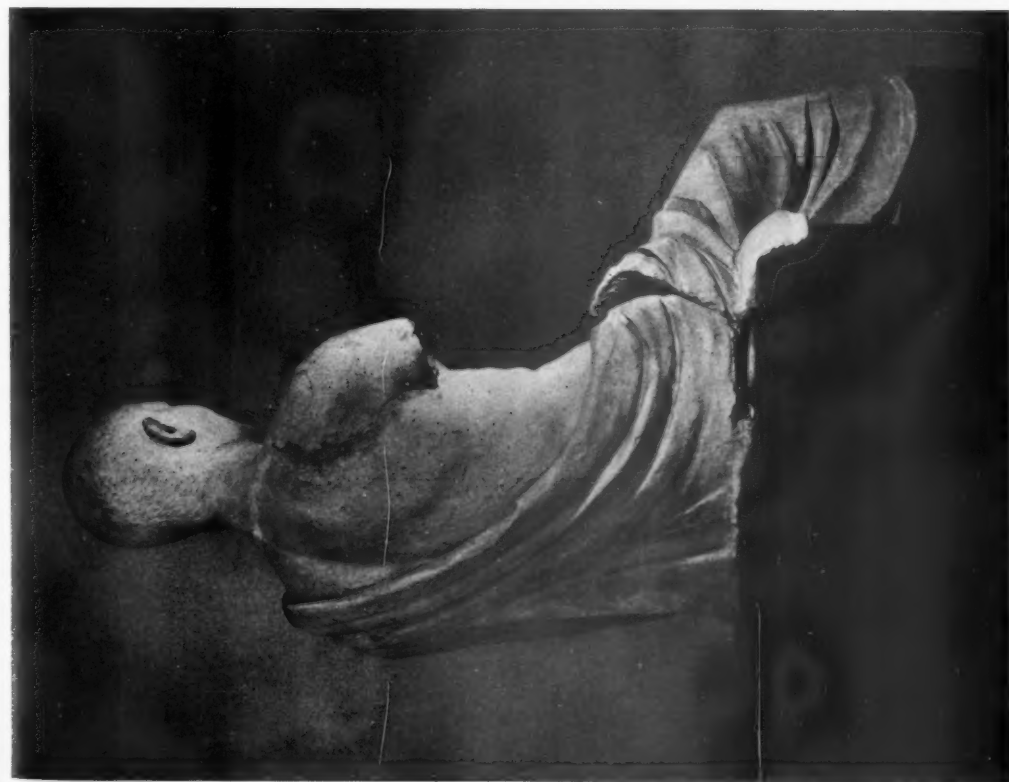


FIG. 8.—PORTRAIT STATUE IN BUFFALO. VIEW FROM BACK



FIG. 9.—HEAD OF PORTRAIT STATUE IN BUFFALO



FIG. 10.—PORTRAIT STATUE IN BUFFALO. LOWER PART SEEN FROM BELOW



FIG. 11.—PORTRAIT STATUE IN BUFFALO. LOWER PART SEEN FROM ABOVE

Here, a slightly projecting edge forms the limit of an oblique, receding cutting; thus, this part of the statue was inserted into a rounded opening on the surface of the cushion. In this fashion, the upper part of the statue was wedged into the two lower blocks, while the preserved lower part rested entirely on the lost base block. Therefore, this block carried the main weight of the statue, although, of course, the upper part of the body also pressed against the thin lower front block. It is understandable that the artist tried to reduce the weight of the upper body by, as far as possible,<sup>6</sup>



FIG. 12.—PORTRAIT STATUE FROM BUFFALO. UPPER PART SEEN FROM BELOW

making the interior hollow (fig. 12). A big dowel hole in the center of this cavity is the result of modern restoration.

It has been necessary to describe these technical details at some length, because they reveal the particular historical milieu of our work, aside from the fact that they give certain clues for the restoration of the lost parts. This method differs considerably from the Greek technique of piecing massive parts together whenever it was unavoidable. One thing is evident: the process of piecing together a statue from three separate, and largely hollow units, cannot have been achieved without the assistance of a detailed clay model. This model was then cut into pieces, so that each of the three resulting units, including the cut edges, could be separately copied in stone.

<sup>6</sup> The cavity, on the average, is about 0.25 m. deep.



This clay model must have been detailed to the last degree. As we have already seen, the three pieces into which it was cut were arranged in such a manner as to make the joints of the work invisible when seen from the front (pl. XI). The arrangement of the drapery, hanging at the left side in such a way as to allow the joint to follow a line between two different units (fig. 7), is a further detail of this kind. All this proves that, from the beginning, in making his model, the artist considered the technical procedure to be followed in the execution of the stone sculpture. However, this whole procedure of making a detailed model and cutting it up into separate units which are individually reproduced in stone and then fitted together in the finished work is not customary in marble sculpture. It is exactly the process of hollow bronze casting of several varieties.<sup>7</sup>

Once having realized this connection, we immediately see that the unique idea of reducing the interior mass of a stone statue by making it as hollow as possible was also inspired by bronze sculpture. In marble, this is an extremely precarious experiment.<sup>8</sup> It is evident that this work belongs to such an experimental stage of Roman sculpture, to a time when marble works first began to be produced by sculptors who were unfamiliar with the material and who, therefore, conceived their statues in the elaborate technical language of clay modelling and bronze casting which had been a glory of central Italy ever since the early Etruscan period.<sup>9</sup> Thus, from this very technical experiment with the new marble material introduced from Greece, we obtain a first hint as to the chronological position of this unique statue: it evidently belongs to the period preceding the last decades of the Roman Republic and the Augustan Age, when marble was commonly used for monumental sculpture. In other words, it is surely earlier, and possibly considerably earlier than the age of Pompey and Cicero. We shall see that its style is in perfect harmony with such an early date. But before we can appreciate that style, it is necessary to consider the restoration of the missing parts, and to draw the resulting conclusions in regard to the identification of the man portrayed.

The feet, the right advancing, the left put backward, both of which, as we have seen, were carved from the missing lowest block, must have had high boots or sandals, with leather straps, extending over the lower half of the legs up to the lines of the lower preserved joints. The upper edges of the boots, or the upper horizontal leather straps above the sandals must have been exactly at the joints, that is, in the middle of the leg, provided the artist followed his principle of making joints which were visible from the front only at such transitional points. This fact results from the position of the joint in the nude left leg (fig. 10), and it can also be proved to be true from the direction of the ancient cutting at this point, since this cutting is not horizontal (as would have been preferable statically), but at a right angle to the line of the leg. Inasmuch as the non-Roman costume of the man eliminates the possibility of restoring Roman *calcei*, the restoration must follow the direction suggested

<sup>7</sup> See, K. Kluge, in K. Kluge and K. Lehmann-Hartleben, *Die antiken Grossbronzen* 1, Berlin, 1926; idem, *Sammlung Kluge, Die Gestaltung des Erzes*, Berlin, 1928; idem, *JdI.* 44, 1929, pp. 1f.; A. J. B. Wace, *A New Approach to Greek Sculpture*, Cambridge, 1935.

<sup>8</sup> The thickness of the walls, averaging 0.07 m., has been reduced to 0.04 m. in some places.

<sup>9</sup> See, for this transition, in the second century B.C., W. Deonna, *Les statues de terre cuite*, Paris, 1908, p. 88.



by the details of a Pompeian wall painting where, in other respects, too, the main figure is strikingly similar to our statue (fig. 13).<sup>10</sup> This painting also shows that the position of the legs of our statue is not compatible with the presence of a footstool. The widely separated feet would not have had sufficient room on such a footstool and, on the other hand, the slight difference in the height of the knees is motivated solely by the movement of the legs. The feet, then, were placed directly on a ground plinth, as they are in the painting. Indeed, this painting may well have been inspired by a similar statue, to which the painter added two figures and the big chest with *volumina*.<sup>11</sup>

Nothing certain can be said about the form of the chair. Experiments with various types of ancient chairs show that a number of possibilities exist. I shall not abuse the reader's patience by considering them. The type shown in the painting is quite possible, too. In any case, the chair can have had no back, since the position of the figure, visible in our profile views (figs. 6-7), would have entailed contact with such a back. In this case, the back would probably have been carved out of the upper block, or, at least, it would have left traces of a connection. Nor are arms compatible with what is preserved of the cushion, or with the position of the figure. The most difficult problem of the restoration is that of the figure's right arm and its attribute. That this arm was held downward and forward at the right side is indicated by the outline of the shoulder, by its upper preserved part, and by the absence of any trace of the right hand in the lap. The destruction of a relatively large section of the upper edge of the drapery on the right hip (fig. 6) and at the lower end of the upper block, makes it likely that the right elbow touched the drapery or was joined to it by a short stud at this point. The forearm, then, must have been extended forward and, probably slightly outward, and have held an attribute in the hand. This attribute might have been a staff, such as that on the Pompeian painting (fig. 13), or, following a Greek sculptural type used in portraying poets (figs. 14-15), it might have been a mask.<sup>12</sup> In view of that common type in sculpture, a mask seems more likely than the enig-

<sup>10</sup> *Antichità di Ercolano* 5, p. 237 (from this, reduced drawings in: Jahn, *Abh. sächs. Ak.* 5, 1868, pt. 4, pl. 4, fig. 6, and Reinach, *Rép. peint.*, p. 316, 1); Helbig, *Wandgemälde*, no. 1463. See, also, below, note 11.

<sup>11</sup> The editors of the *Antichità* were uncertain whether the picture represented a poet or a philosopher. Jahn, *op. cit.*, p. 292, saw in it a teacher. But the staff in the picture is certainly not the "*ferulae tristes, sceptrum paedagogorum*" of Martial 10, 62, 10. Such a staff occurs repeatedly in theater scenes, where it is held by directors (who, after all, were not necessarily different from, and indeed, generally were, playwrights): see, Herrmann-Bruckmann, *Denkmäler der Malerei*, pl. 14. For the motive of the large *scrinium* in pictures of poets, see, *ib.*, pls. 28 and 67. Thus, these are typical paraphernalia in such scenes in Pompeian wall paintings and, like the figure of a woman (Muse?) and a boy (a younger poet?), in the picture, seem to be added to a sculptural type, as such additions took place in the Euripides relief (fig. 14) and, also, in the Menander relief (see, below, note 12). With the exception of its reversed position of the legs, the figure in the painting strikingly resembles our statue, even in regard to the type of the head. Indeed, this latter resemblance is so marked that one feels tempted to recognize the same person, who, in that case, should be a famous author.

<sup>12</sup> See, for this type, Krüger, *AM.* 24, 1901, pp. 135 f. The best comparisons are furnished by the well known relief of Euripides (M. Bieber, *History of the Greek and Roman Theater*, Princeton, 1939, pp. 50 f., fig. 60, with bibl.; here fig. 14) which probably depends on the fourth-century statue of the Athenian theater, and the "Menander" relief in the Lateran (*ib.*, pp. 165 f., with bibl., fig. 223; detail, here, fig. 15). The latter, also, shows the characteristic curve of the back which is so natural in such a position (compare, our statue, fig. 6). The statue of Moschion (Hekler, *op. cit.*, pl. 112 a), a Roman



FIG. 13.—POET. POMPEIAN PAINTING FROM VILLA OF DIOMEDES



FIG. 15.—MENANDER. FROM RELIEF IN ROME, LATERAN MUSEUM



FIG. 14.—EURIPIDES. RELIEF, ISTANBUL



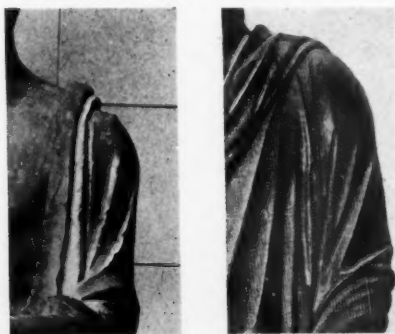
FIG. 16.—LIMESTONE HEAD. PALESTRINA



FIG. 17.—TERRACOTTA HEAD. ROME, VATICAN MUSEUM



FIG. 18.—TERRACOTTA HEAD. MUNICH



A  
B  
FIG. 20.—A. DETAIL FROM STATUE IN BUFFALO  
B. DETAIL FROM ARRINGATORE, FLORENCE,

matic staff of the painting, which may result from the transformation made by a painter who used this author type within a different and more comprehensive context in which the mask was out of place.

Apparently our man is a playwright, represented with a volume in the left hand and a mask in the right hand. That he is an author, and that the scroll in his left hand indicates this profession is clear from analogies with other works of art which have been mentioned. The scroll can neither be the Roman *testamentum*, nor can it have any relation to official Roman functions, because the man is evidently not a Roman citizen, for a citizen would have been represented in the toga, and not, according to Greek fashion, in the himation. On the other hand, he is not a Greek, as every critic familiar with types of ancient portraiture will agree. The head reproduces a thoroughly "Roman" type of the Republican period. Consequently, in this remarkable statue from Rome we have a portrait of one of those Latin poets of the Roman republic, who came to Rome from other parts of Italy, as slaves or freedmen and, under the protection of Roman *nobiles*, engaged in their creative activity of building up a worthy Latin literature. It is in complete harmony with the man's position that he is represented in a Greek garment, and by means of an artistic formula which quotes Greek literary tradition. This tradition was revived by Italian personalities through the medium of the Latin idiom.<sup>13</sup> The statue of this poet is the best extant artistic illustration of that great humanistic process which prepared the "golden age" of Roman poetry, during the last two centuries of the Roman Republic.

A funeral portrait of such a poet—and most likely our statue, said to have been found on the Via Appia, had that function—might have been erected at any time during that eventful period, in connection with the *monumentum* of a cultured *gens*. There is evidence for this fact in the traditions about the marble portrait statue of Ennius in the tomb of the Scipiones.<sup>14</sup> Indeed, that statue, which was from a very early period, although possibly made by a Greek sculptor, and of different technique and style, offers an interesting and striking parallel to that of the poet represented in Buffalo.

Who is this poet, portrayed in such an impressive and energetic attitude, full of restrained dramatic temperament, with the remarkably individual features of the head (pl. XII, fig. 9), with its domed skull, its high receding forehead, its big staring eyes, straight, tight-lipped mouth and small chin? If it is correct to assume that he is a playwright, it is tempting to identify him with one of the great figures of Roman dramatic poetry. But this writer sees no possibility of any such identification at the present time. Of course, it is possible, too, that the man represented in this portrait was not recorded in the annals of the history of literature.<sup>15</sup> In any case, we should

copy of a third-century B.C. original (for the date of Moschion, see Körte, *RE*. 16, pp. 345 f., where this important statue is not mentioned), should also be restored with a mask in the raised left hand. Menander and Moschion, too, are seated on backless chairs, as our poet, and the figure in the painting.

<sup>13</sup> That the sculptured type was current in Republican Rome is apparent from the fragment of a terracotta figure, recently discussed by Inez Scott Ryberg, *An Archaeological Record of Rome*, London, 1940, pl. 51, fig. 195 a, pp. 194 f. (with reference to the Buffalo statue, in note 96).

<sup>14</sup> Cic., *Pro Archia* 9, 22; compare: Livy, 38, 56, 4; Pliny, *NH*. 7, 114. See also, note 13.

<sup>15</sup> However, see note 11.

keep in mind the fact that he was not a Roman citizen, but of Italic origin and that, very likely, he died and was buried in Rome. These facts rule out a number of possibilities. In addition, any future attempt at identification will have to be based on the style of the statue and on stricter considerations in regard to its date, than those which have already been indicated, as a result of its generally Republican character and its early, experimental technique.

This technique points toward a date before the middle of the first century B.C. and, in my opinion, such a date is clearly indicated by the style, too. This style reveals a curious combination of various Greek and Italian elements. The figure type is based on Greek tradition of the fourth century B.C., such as that of the Euripides portrait (fig. 14). But the modelling of the torso, with its simple planes, its clear anatomical rendering, and its sharp horizontal central division (pl. XI), recalls a much earlier idea of the human body, and is related to classicistic associations with the art of the early classical Greek style around the middle of the fifth century B.C. On the other hand, the rich and complicated arrangement of the drapery, as far as it is visible in front view (pl. XI), and the very exaggeration of the contrasting movements of the legs, echoes the *furioso* of the Pergamene "baroque" style of the earlier second century B.C.<sup>16</sup> And all this is in strange contrast to the simplicity of the long, generally parallel lines of the lateral drapery folds (figs. 6-7). Here, the artist (as we have seen, he does not consider the profile views), within the limits of the given, rather complicated type, falls back on what seems to be his routine language and his native idiom.<sup>17</sup> And he uses this simple style, with its impressive austerity, exclusively, where he does not and cannot rely upon quotations from Greek art: in the modelling of the head (pl. XII, fig. 9).

The preceding remarks have already limited the possible date of our figure to a period between the Pergamene style of the first half of the second century B.C. and the age of Cicero, i.e., to the generations between 150 and 60 B.C. The particular eclecticism of this work would be understandable anywhere within this period, when Hellenistic traditions and Neo-classical retrospective elements were commonly used in fluctuating symphonic compositions, as can be seen in Greek works after the Pergamene altar. And in that age, too, we can understand this combination of the native Italian elements of a simple, provincial style with the sophisticated, late Hellenistic inheritance, in a work which, technically too, uses the Italian traditions of bronze sculpture for a daring experiment in Greek marble work.

<sup>16</sup> In its mixture of Hellenistic and Classical elements, the statue resembles the terracotta pedimental group which has been judiciously discussed and dated in the same general period by Mrs. Ryberg, *op. cit.*, pp. 195 f. In order to appreciate the markedly baroque character of parts of our figure, compare the contrasting simplicity of an early Hellenistic work, such as the statue of Moschion (note 12), and, for the different rendering of the drapery which hangs down from the lap, the Poseidippos (Hekler, *op. cit.*, pl. 110 a). The Neo-classical modelling of the body is closely related to that of the *victimarius* of the terracotta pediment (Ryberg, *op. cit.*, pl. 52).

<sup>17</sup> That this style was particularly connected with one traditional trend of Italian sculpture is shown by its common survival in the provincial Italian production of large-sized terracotta figures during the late Republic and early Empire: Deonna, *op. cit.*, passim; A. Levi, *Terracotte figurate del Museo di Napoli*, Naples, 1925, pls. 5 f., 14. It also survives in late Republican grave monuments and such crude provincial works as the statue of Livia from the Villa of the Mysteries in Pompeii, where it is in strange contrast with the refined work of the imported head.



Within this period, it is hard to indicate any more exact date. This is due to the fact that the work is probably the only preserved Roman marble statue from this entire age and, indeed, with a possible exception of a few portrait heads, it is the earliest preserved Roman marble sculpture. The chronological uncertainty is also the result of the lack of absolute chronological dates in late Etruscan and early Roman art in general. The debate about the development and chronology of Italian sculpture during the Republic has not yet furnished a solid chronological framework,<sup>18</sup> nor has it led to any agreement concerning the major pieces. Not a single portrait has been identified with certainty before the age of Pompey.<sup>19</sup> The date of the only major relief of the Republic, the altar of Ahenobarbus, is debated too.<sup>20</sup> At the present stage, it is safer to talk about pre-Ciceronian sculpture in Rome than to use more definite terms. The attribution of works to this period can be defined negatively by their lack of similarity to known late Republican or Imperial works of art, and positively by their relationship to groups of late Etruscan sarcophagi and urns, and local Italian terracotta sculptures. In addition, whatever Greek stylistic influences exist may be used for *termini post quem*. This is the case of our statue which, as has been said, cannot be earlier than the middle of the second century B.C., because of the style of the drapery.

The head (pl. XII, fig. 9) with its flat, graphically delineated hair, and its soft and smooth surfaces, with its strange, broad, flat lids encircling the eyes, shows definite connections with terracotta and limestone sculptures from central Italy which have been dated in the second century B.C.<sup>21</sup> (figs. 16–18, p. 212). On the other hand, the

<sup>18</sup> This debate in the course of the last fifteen years was initiated by the courageous pioneering work of G. v. Kaschnitz-Weinberg (*Rendiconti della Ponteficia Accademia Rom. di arch.* 3, 1925, pp. 325 f.; *RM.* 41, 1926, pp. 133 f.). In addition, see, especially: J. Sieveking, *MJb.* 5, 1928, pp. 21 f.; van Essen, *Mededeelingen van het Nederlandsch Instituut te Rome* 8, 1928, pp. 30 f.; K. Goertert, *Zur Kunst der römischen Republik*, Diss., Cologne, 1931; R. West, *Römische Porträt Plastik*, Berlin, 1933, ch. 2; L. Curtius, *RM.* 47, 1932, pp. 202 f.; Idem, *Gli studi Romani nel mondo* 1, Rome, 1934, pp. 79 f.; A. Zadoks-Jitta, *Ancestral Portraiture in Rome*, Amsterdam, 1932; Fr. Poulsen, *Probleme der römischen Ikonographie* (Kgl. Danske Videnskabernes Selskab, Arch. konsthist. Meddelelser, 2.), Kopenhagen, 1937; E. Olsen, *MAAR.* 15, 1938, pp. 83 f.

<sup>19</sup> For Sulla, see, Poulsen, *op. cit.*, pp. 16 f., with bibl. The Norbanus Sorex, though certainly Republican, may belong to the generation after Sulla, whose protégé the man had been (see, against Goertert, *op. cit.*, pp. 23 f., my remarks in *Baugeschichtliche Untersuchungen am Stadtrand von Pompeji*, Berlin, 1935, p. 176, note 4, and Poulsen, *op. cit.*, p. 22).

<sup>20</sup> Goertert's early date, *op. cit.*, pp. 7 f., is not based on sufficient evidence. See: Zadoks-Jitta, *op. cit.*, pp. 62 f.; Ryberg, *op. cit.*, p. 199. The monument deserves a real publication; not till then can any progress in its stylistic and iconographic interpretation be made.

<sup>21</sup> The terracotta votive heads fig. 5, p. 337 and pl. 22 (here, fig. 17) of Kaschnitz (*Rendiconti*, l.c.), datable in the late second century B.C., are particularly close, in general style. Compare, also, the terracotta head in Munich, West, *op. cit.*, pl. 6, fig. 18; here, fig. 18. The limestone head in Palestrina (Kaschnitz, *RM.* pp. 184 f., figs. 20 f.; West, *op. cit.*, pl. 8, fig. 23; here, fig. 16), with its incised hair and large eyes framed by broad lids, is a forerunner of this style, whether it was made in the third or in the early second century B.C. The so-called Ennius, from the tomb of the Scipios (West, *op. cit.*, pl. 8, fig. 24) belongs to the same stylistic trend of the second century. On coins, the types with Scipio Africanus (*ib.* pl. 67, fig. 5) and those of P. Cornelius Sulla and Q. Pompeius Rufus (Poulsen, *op. cit.*, pl. 28, figs. 30–31) represent the same tradition. The feather-like stylization of the hair of our head survives, with slightly more plasticity, in the head of Norbanus Sorex (Kluge-Lehmann-Hartleben, *op. cit.* 2, p. 4; Poulsen, *op. cit.*, pl. 43). But such a detail of a convention which is ultimately derived from Hellenistic types may occur in works of various periods. I cannot follow Poulsen in his attempt to classify stylistic groups in Republican portraiture merely on the basis of such secondary details. The



style of the drapery folds on the right side (fig. 6) and, particularly, on the upper left arm, where native traditions are visible, somewhat resembles the style of the Arringatore (fig. 20). If it is right to guess the date of this late Etruscan bronze statue as about 100 B.C.;<sup>22</sup> it might well be an indication that an approximate date for the Bufalo poet would be around that period, too.

At the present stage of our knowledge, it would be hazardous to press the issue. Our poet might have been active either in the age of the Gracchi, or in that of Sulla. In any case, this portrait is of unique value for the study of the process by which Roman portrait sculpture grew. Its adaptation of a Greek portrait type, its dependence upon Hellenistic style, its classicistic use of marble material and of the severe clarity of the anatomical modelling is the result of an eclectic combination of Hellenic elements. Its elaborate technical process reflects the native tradition of monumental art. And its elements of simplicity in the less visible parts of the drapery, and, above all, in the comparatively archaic head, are rooted in a Latin tradition which emerges from the provincial art of Italy to become a contributing factor in the formation of a new art.

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resulting groups include works which are utterly incompatible with each other in their basic stylistic character. Among the marble heads, a fine portrait in the British Museum (R. P. Hinks, *Greek and Roman Portrait Sculpture*, London, 1935, pl. 20 b; here fig. 19) is closely related to our poet. Hinks has rightly compared it (on his plate) with an Italic terracotta head belonging to the second or early first century B.C. Why he dates the marble head as late as he does (on p. 21), I cannot see. Not much later than our poet and possibly contemporary with the Norbanus Sorex, is a head in Mantova (A. Levi, *Sculture del Palazzo Ducale*, 1931, p. 55, pl. 59). All the male heads of the latest Republic, however simple or even crude, show more detailed surface modelling, generally including strongly carved folds from the roots of the nose to the corners of the mouth, or a gradual and refined transition of many planes, instead of the pebble-like simplicity of this group of works. And, also, they never frame the eyes with these broad, flat lids. The absence of such criteria, of course, does not exclude the early date of entirely different heads which belong to other trends of the early period. Many of the terracotta heads (see bibl., above, note 18) and late Etruscan works, including the head of the Arringatore, give evidence of the co-existence of various trends and influences which are to be found, as in our case, even in one and the same work.

<sup>22</sup> See, Poulsen, *op. cit.*, p. 15. Compare, however, for the head, the preceding note.

### THREE NAMES ON A CORINTHIAN JAR

THE Corinthian jar with handles in the form of women's heads, shown in figures 1 and 2, was acquired by the Metropolitan Museum in 1874 as part of the Cesnola Collection.<sup>1</sup> It comes, however, not from Cyprus, but from Corinth, for on the bottom there is pencilled KOPINΘΟΥ 1872 O.-X.-. It must, therefore, have been acquired by Cesnola in his travels.

Jars of this type have been discussed by Payne in *Necrocorinthia*.<sup>2</sup> They probably served some feminine purpose, for they occur in women's graves.<sup>3</sup> The Cesnola example, dated by Payne ca. 550 B.C. on the evidence of the heads,<sup>4</sup> is remarkable for what seems to be a unique feature, the presence of inscriptions. I propose to discuss these inscriptions.<sup>5</sup>

They consist of three feminine names, incised in the Corinthian alphabet, one under the head of each girl across the band of purple that represents the top of her dress,  $\Phi\acute{\iota}\omicron\pi\alpha$ ,  $\text{Ἰμερῶι}$  (the final  $\iota$  belongs to the Corinthian nominative ending) and  $\chi\alpha\rho\acute{\iota}\tau\alpha$ . The cleanness of the lines, the almost complete absence of chipping, would seem to indicate that the names were scratched on before the vase was fired.<sup>6</sup> The potter, then, or the vase-painter must have written the names.

What did he intend by these names? Are they merely fanciful? Or did he have real people in mind, his own acquaintances, perhaps, or those of his customer? If he did, we have but one more proof how far the Greeks were from any idea of portraiture in the mid-sixth century B.C., for the two intact heads—and so presumably the third also, the face of which is missing—are made from the same mould, as we see from the presence of a flaw across the left eye.

To determine whether these names are fanciful or not, we have no evidence except the names themselves. In studying them we can draw on a great fund of evidence accumulated by Fick, Bechtel, and other scholars.<sup>7</sup> In order to make the argument easier to follow, I must briefly describe the classes of Greek names. In formation, Greek personal names fall into two great classes, those formed on two stems<sup>8</sup> (e.g.  $\text{Μεγακλῆς}$ ) and those formed on one stem (e.g.  $\text{Κόριννα}$ ). From one-stemmed names pure and simple, however, we must distinguish those which are merely shortened forms of two-stemmed names (e.g.  $\text{Πόλυς}$  from some such name as  $\text{Πολύγνωτος}$ ) and are classified under them. Another type of shortened two-stemmed name is made

<sup>1</sup> Acc. no. C.P. 54. Published by J. L. Myres in the *Handbook of the Cesnola Collection of Antiquities from Cyprus*, pp. 292 f., no. 1724.

<sup>2</sup> Pp. 293, 306 f., 322, 332.

<sup>3</sup> So Professor Shear informs me. Cf. *A.J.A.* xxxiii, 1929, pp. 541 ff., fig. 21.

<sup>4</sup> *Op. cit.*, pp. 236, 322, no. 1309.

<sup>5</sup> See also *B.M.A.* xxxvii, 1942, pp. 36 f. They were overlooked in previous publications, but had been noted by someone who copied them—Corinthian alphabet and all—in pencil, on the bottom of the vase.

<sup>6</sup> This is the opinion of Miss Richter, who made a careful examination of the inscriptions.

<sup>7</sup> See especially Fick and Bechtel, *Die griechischen Personennamen*, Göttingen, 1894; Bechtel, *Die attischen Frauennamen*, Göttingen, 1902 and *Die historischen Personennamen des Griechischen bis zur Kaiserzeit*, Halle, 1917; E. Fraenkel, s.v. *Namenwesen*, in *RE.* xvi, cols. 1611 ff.

<sup>8</sup> When a third stem is used, it is combined with one of the others in such a manner that the name remains bipartite, e.g. *Amompharetos*. *Hermokaikoxanthos* in Aristotle, *Poetics* 21, however, is tripartite; for a discussion of the passage see Wilamowitz-Moellendorf, *Aristoteles und Athen* ii, p. 29, n. 39.

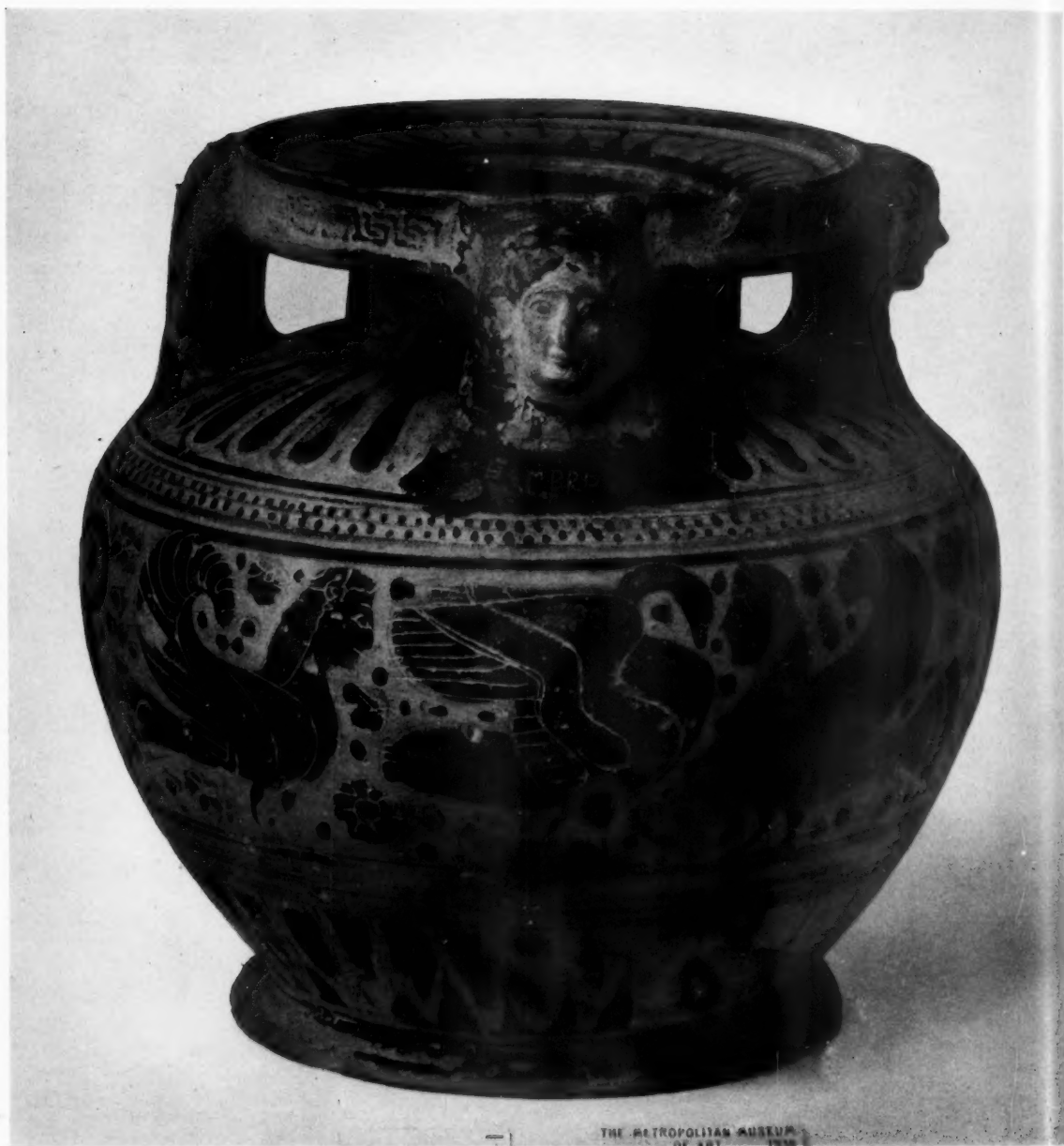


FIG. 1.—CORINTHIAN JUG FROM CORINTH IN THE METROPOLITAN MUSEUM  
(Courtesy of the Metropolitan Museum of Art)

by retaining in addition to the first stem a fragment of the second one (e.g. Πολυξώ from Πολυξένη). When we examine the way in which Greek names are used we again find two great classes, divine and human. Among divine names those of the great Olympian gods are not borne by human beings until a very late period.<sup>9</sup> Names of minor divinities, however, such as nymphs, heroes, and heroines<sup>10</sup> are sometimes borne by human beings. Such names, however, are more frequent from the fourth century B.C. on than earlier, and during the whole pre-Roman period are, though not in all cases limited to, at least more characteristic of the lower classes



FIG. 2.—HEADS WITH CORINTHIAN INSCRIPTIONS FROM THE JAR SHOWN IN FIGURE 1

(Courtesy of the Metropolitan Museum of Art)

than the upper ones. One class of the population was especially addicted to them—the hetairai.<sup>10a</sup>

<sup>9</sup> Aphrodita is the only example cited by Bechtel for the pre-Roman period (*Die historischen Personennamen*, p. 566). On Artemis see *Die altischen Frauennamen*, pp. 76 f. We are not speaking here, of course, of names like Demetrios and Athenodoros.

<sup>10</sup> Strictly speaking, heroic names form a separate class, but show many coincidences with divine names and, except for names composed of elements that survived in use down into the historical period (e.g. Ἀγακλῆς), were similarly avoided by the Greeks.

<sup>10a</sup> Miss Charlotte Fränkel states (*Satyr- und Bakchennamen auf Vasenbildern*, pp. 15 f.) that on Chalcidian and Corinthian vases there is not the distinction made between names of nymphs and those of mortal women that we find in fifth-century Athens. This statement rests on the assumption that certain scenes in which the names Φιῶ, Κλυτώ and Χορῶ occur are not mythological. The assumption is false, for one of these scenes, the departure of a warrior in a chariot (Louvre E642=Payne, *op. cit.*, p. 166, no. 48 and Wrede, *AM.* xli, 1916, p. 224, no. 6), is marked as heroic by the presence of the war chariot, and the others, the departure of a bride (Louvre E637=Payne, *op. cit.*, p. 168, no. 66) and two arming scenes (Berlin 1637=Payne, *op. cit.*, p. 166, no. 50; Cabinet des Médailles 203=Rumpf, *Chalkidische Vasen*, pp. 9, 46, no. 4) belong precisely to the category of scenes that can be either genre or heroic according to the names given the participants. Of the other names that occur on the three vases just mentioned one, Δάπας(?), seems not to be known elsewhere, another, Τόξ[ος] or Τοξ[εύς], is known as the name of one of the sons of Eurytos, and a third, Τύξι . . . , is unintelligible except as an error for Τυχι[ος], a heroic name (cf. Kretschmer, *Vaseninschriften*, p. 65). The remaining names are composed of elements (sometimes in shortened form as in Περίφας and Πόλυδος) which are common to both heroic and historical names. None of these names would be inappropriate in a heroic setting and some of them (Ἀγάνωρ, Περίφας, Γλαῦκος, Δημόδοκος, and Ἰππολύτη) have predominantly heroic associations. The appearance of the names Φιῶ, Χορῶ, and Κλυτώ on these three vases, far from proving that they can be indiscriminately given to mortal women, merely confirms the heroic character of the scenes in question.

Of the three names on our vase, one, *Φιώπα*, clearly belongs to the class of divine names, for its second element -οπ- is limited to such names, e.g. *Μερόπη*, *Ἀντιόπη* and the men's names, *Πέλοψ*, *Χάροψ*.<sup>11</sup> The name *Iope*, furthermore, was already known to us as that of a heroine, a wife of Theseus and daughter of Iphikles.<sup>12</sup> Both elements of which this name is composed appear not only in names of heroines but also in those of minor divinities: *Ἰάνασσα*, a nereid, *Ἰάνειρα*, the name of a nereid and of an okeanid, *Ἰάνθη*, the name of an okeanid, *Φίωι*, the name of two nereids on a Corinthian vase,<sup>13</sup> *Ῥοδόπη*, an okeanid, *Πανόπη*, a nereid, *Ἀστερόπη*, an okeanid, *Deiopea*, a nymph, *Φανόπη*, a maenad. Most of these names in -όπη seem to be from ὄψ "eye," "face." In the name of the Muse *Καλλιόπη* and in *Antiopa*, the name of the mother of the Muses in Cicero, *De nat. deor.* iii, 54, *Ἀργιόπη*, the mother of *Thamyris*, and some other mythological names, ὄψ means "voice."

The above list of names suggests that *Φιώπα* would be a good name for a nereid, whether we take *Φι-*, an element notoriously difficult to interpret, to mean "strength" (an interpretation that Iphikles, the name of the father of the heroine *Iope* would seem to favor), or to mean "violet" on the analogy of *Ῥοδόπη*. *Φιώπα* would then be "violet eyes" and an appropriate name for a goddess of the *λοιδῆς πόντος*. Among nereid and okeanid names we find both these meanings of *Φι-*, "violet" in *Ἰάνθη* and "strength" in *Ἰάνασσα* and *Ἰάνειρα*.<sup>14</sup>

The name *Ἰμερώ* I have not found elsewhere. *Ἰμερο-* appears as the first element of several two-stemmed historical names, but Bechtel quotes no instance of any of them earlier than the Hellenistic period. It, therefore, seems safer not to take *Ἰμερώ* as a short form of any of these names. It might well be such a form of a mythological name, however, for a siren on the stamnos in London by the Siren painter is called *Ἰμερόπια*.<sup>15</sup> In meaning, of course, it recalls *Erato*, the name not only of the Muse, but also of a dryad, a hyad, and a nereid. *Ἰμερώ*, then, would be an appropriate nereid name, for as Hesiod uses *ἐρατή* and *ἐρώεσσα* of nereids, so he and the poet of the hymn to *Demeter* use *Ἰμερώεσσα* of an okeanid. The similarity and frequent coincidences between okeanid and nereid names are well known.

*Χαρίτα*, on the other hand, seems not to appear elsewhere as a mythological name, but is known as the name of several mortal women;<sup>16</sup> no occurrence that I have found, however, can be earlier than the fourth century B.C. Two-stemmed names compounded with *Χαριτο-* would seem not to be early. Only one example, *Χαριτοκλῆς*,

<sup>11</sup> *Φιώπα* is just as possible graphically and -ωπ- is a not uncommon element of names of historical persons. *Φι-*, however, is rather rare in such names and it, therefore, seems inadvisable to read *Φιώπα*, a name apparently not recorded elsewhere.

<sup>12</sup> Plutarch, *Theseus* 29. The *Iope* who was the daughter of *Aiolos* and wife of *Kepheus* is merely the eponymous heroine of the city of *Joppa*.

<sup>13</sup> Payne, *Necrocorinthia*, p. 166, no. 47.

<sup>14</sup> That is, if *Ianassa* and *Ianeira* are to be equated with *Iphianassa* and *Iphianeira*. On short and long *iota* in words derived from the various roots *Φι-* see Kretschmer, *Vasenschriften*, p. 44.

<sup>15</sup> *FR.* iii, pl. 124.

<sup>16</sup> The earliest are *IG.* iv, 527, 13, of the fourth or third century B.C., according to Richardson, *AJA.* xi, 1896, p. 51 (cf. p. 49); *IG.* vii, 1494, which seems to be dated by the editor somewhere in the fourth, third or second century (see his note on no. 589); *IG.* ii, 4279 (in the Attic form *Χαρ(τ)η*), which, to be included in this volume, must belong to the fourth century or the Hellenistic period. The other examples in the *Corpus* belong to the Roman period: *IG.* iii, 1732, 2188; ix, 2, 547; xiv, 950 (Christian).



from an undated inscription of Telos,<sup>17</sup> is cited by Bechtel for the pre-Roman period. Χαρίτα, however, might be a two-stemmed shortened form of Χαριτίμη or Χαριτέχνη. On the other hand, it might be a one-stemmed name, made by shifting the declension from the third (χάρης) to the first.<sup>18</sup> As far as the meaning goes, Χαρίτα would be an appropriate nereid name, for Psamathe and Melite are both called χαρίεσσα in Hesiod's catalogue of nereids.

Though the names on our vase would, as we have seen, be appropriate for nereids, there is nothing in their form or meaning that would make them inappropriate for other nymphs. Of all the nymphs of whom we read in Greek poetry, however, the nereids are the brightest embodiment of youth, beauty, and charm and so would be particularly suitable on a woman's toilet vase. The white-ground toilet box acquired by the Metropolitan Museum in 1940, with scenes of the home life of the nereids,<sup>19</sup> shows that the fifth-century Athenians felt this, and I see no reason for denying such a feeling to an earlier period and to Poseidon's Corinth. We are reduced after all to guessing and nereids are the best guess.

If, on the other hand, the names on our vase are intended to be those of actual women, it is most likely that they belonged to hetairai. Himero has an obvious professional appropriateness, and as a matter of fact we find the closely related Erato as the name of a naked hetaira on a Corinthian krater of about 575-550 B.C.<sup>20</sup> Iope appears on an Attic black-figured hydria of the late sixth century in the British Museum as the name of a woman drawing water in a fountain-house.<sup>21</sup> Though she and her companions look respectable enough, so respectable that they were taken by Bechtel, apparently following Robert,<sup>22</sup> to be "vornehme Athenerinnen," their names betray them, for of the two companions of Iope to whom names are given, one is called Rhodopis and the other Kleo. Rhodopis we know not only as the name of the most famous hetaira of the pre-classical period, but also as a *kale* name on a red-figured kylix by Makron of about 490-480 B.C. in the Metropolitan Museum.<sup>23</sup> Whether we take this *kale* inscription to refer to the half-legendary Naukratite beauty, or to some contemporary favorite, it is clear that at the time the hydria in the British Museum was painted the name Rhodopis was hardly likely to imply respectability. The third name on this hydria in the British Museum, Kleo, so far as its form alone goes, could be a short form of some two-stemmed historical name in Κλεο- and so an excellent name. In association with Rhodopis, however, it is much more likely to be the name of the Muse, which had been adopted by some hetaira who was, like so many of her kind, a professional musician. And so I think we should probably interpret the name Kleo in the only inscription in which it ap-

<sup>17</sup> IG. xii, 3, 56 [A]ριστόφιλος [Χαρ]ιτοκλεῦς.

<sup>18</sup> The shift of course involves a change of stem. Cf. Bechtel, *Namenstudien*, pp. 26-27 and Καλύκη, the name of a number of mythological characters and also of a mortal woman in Aristophanes, *Lysistrata* 322. Instead of Καλύκη on the Epeleios kylix in Munich, however (Kretschmer, *Vaseninschriften*, p. 202), Buschor in *FR.* iii, p. 243, reads Γαλυκο i.e. Γλαυκώ.

<sup>19</sup> Acc. no. 40.11.2. *B.M.M.A.* xxxv, 1940, pp. 157 ff. See also the kylichnis by the Eretria Painter in London, *FR.* i, pl. 57, 3, and the lekanis in the manner of the Meidias Painter, Naples 2296 (see Beazley in his forthcoming *ARVP.*, p. 840, no. 77).

<sup>20</sup> Payne, *Necrocorinthia*, p. 167, no. 59.

<sup>21</sup> B 329. *AD.* ii, pl. 19.

<sup>22</sup> *Die attischen Frauennamen*, pp. 79, 32.

<sup>23</sup> Richter and Hall, *Red-figured Athenian Vases in the Metropolitan Museum of Art*, p. 75, no. 53; Robinson and Fluck, *A Study of the Greek Love-Names*, p. 178, no. 242.

pears in the pre-Eukleidian volume of the Attic Corpus,<sup>24</sup> for here it is the name of the dedicator of a small bronze to Athena, and a number of such dedications, we know, were made by artisans and other members of the working class. We see, then, that the milieu in which Iope appears on the hydria in the British Museum confirms what is suggested by the derivation of the name itself, namely, that in the earlier period it is more suitable to a hetaira than to a member of the upper classes. The third name on our Corinthian jar, Charita, on the other hand seems not to imply any particular social class—unless, of course, our suggestion that it is a nereid name should prove correct, in which case it, too, would be an appropriate hetaira name.

A third possibility may have occurred to the reader, namely that the names belong neither to nereids nor to hetairai, but are merely fanciful, suggesting beauty and charm and hence appropriate on a woman's toilet vase. While this explanation might pass for Himero and Charita, it is refuted by Iopa, for the way in which names in -όπη are avoided by people of good standing throughout the archaic period and the fifth century shows that there was a very definite feeling toward them and that they would not be chosen at random by someone in search of a fanciful name.<sup>25</sup>

To decide between the two admissible interpretations, to say definitely that the potter intended the three girls on our jar to be nymphs, specifically nereids, or, on the other hand, that he intended them to be mortals, specifically hetairai, I find impossible. One might argue that all the evidence we have is in favor of the second hypothesis, for Charita after all is known to us only as a non-mythological name<sup>26</sup> and Iope, when it appears in a non-mythological scene, is associated with the famous hetaira name Rhodopis. In view, however, of the great number and variety of nereid and other nymph names, it seems unsafe to argue that a name that does not appear in our extant sources could not, if appropriate in meaning and formation, have been a nereid name. In favor of the nereid hypothesis, on the other hand, one might argue that a vase like ours, intended as it probably was for women's use, would be more saleable with the names of nereids on it than with those of hetairai. A respectable woman would not care for hetaira names and a hetaira would not appreciate the names of rivals.<sup>27</sup>

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<sup>24</sup> *IG*, i<sup>2</sup>, 424.

<sup>25</sup> Therefore I suggest that Καλ(λ)ιοπ[α], a woman taking part in a religious procession on a fragment of a Corinthian krater (*AJA.* xxx, 1926, p. 448, fig. 3 and Payne, *Necrocorinthia*, p. 166, no. 52), is meant to be a hetaira, for in Corinth hetairai took part in public supplications and sacrifices to Aphrodite (Athenaeus xiii, 573 c-e).

<sup>26</sup> I should say rather "known to me."

<sup>27</sup> I have not thought it necessary to discuss here the painted female heads with names inscribed on Corinthian handle plates of kraters and on a Corinthian kylix (Payne, *op. cit.* p. 164, nos. 21, 22; p. 163, no. 12). They are ornaments of the stag dinner while our vase belongs to the boudoir. Aineta on the aryballos, Payne, *op. cit.* p. 162, no. 5, might seem at first sight to offer a parallel, but she does not have to share the homage of her admirers with another, let alone two others. The admirers, it is true, show a co-operative spirit, but would Aineta have been capable of the same camaraderie?

## GANDHĀRA AND LATE ANTIQUE ART: THE BUDDHA IMAGE

LATE Antique art, particularly in its provincial manifestations, represents a phase of artistic expression significant not only for its intrinsic aesthetic merit, which, contrary to popular opinion, is sometimes considerable, but also for its revelation of a period of culture when the old classic humanistic values were locked in a death struggle with the dynamic and overwhelming forces of Oriental and barbarian art, a struggle that was to end with the victorious emergence of mighty and new spiritual forces that produced Mediaeval art in the West and the great and truly ghostly beauty of developed Buddhist art in India and the Far East. Classic art, which held a mirror to catch the familiar, friendly face of nature, was no more compatible with Oriental art and its endless yearnings after the other world than it was with the fantastic and dynamic imaginings of the barbarian soul in Gaul and Britain. In Gandhāra art we have the same spectacle of classical forms endeavoring vainly to express in material terms the ideals of an immaterial religion that we have in the attempts of the Early Christian sculptors to adopt the Graeco-Roman forms so unsuited to their spiritual ideals. Herein lie the reasons why classical art could not survive in a world whose thoughts were beyond Nature and the accidental beauty of the human form. And it is precisely as an exemplar of this universal process involving the death of classical art and the rebirth of spiritual and really traditional thought in art that the much-maligned Graeco-Buddhist school of Gandhāra is of particularly vital import: to understand fully its rôle in the last great struggle between East and West we must first know its precise chronology and its relation to the world of western art in the early centuries of the Christian era.

In an earlier article on Gandhāra sculpture, the writer has analyzed at considerable length the chronological and stylistic evolution of this hybrid school of Late Antique sculpture in northwestern India and Afghanistan.<sup>1</sup> On the basis of further research it is now possible to consolidate the opinions expressed there on the relations between Gandhāra and the Roman Empire; as will be indicated in the course of this study, certain modifications of earlier hypotheses are in order. For the sake of unity, the present essay will concern itself only with the Buddha image, although the author has in preparation for publication yet other striking similarities in types and techniques that confirm even more strongly the intimate relationship between the Graeco-Roman school in India and the art of the late classical world.

Although it is undeniable that there is evidence for the existence of a provincial Hellenistic or Graeco-Parthian art in northern India in the second and first centuries B.C., it appears more and more certain to the present writer that this final and slight legacy of Alexander's successors in Bactria had only a very minor influence on the later Graeco-Roman school of Gandhāra.

On the basis of actual inscribed fragments and remains found under reliable archaeological conditions, there is every indication that the Gandhāra school of

<sup>1</sup> B. Rowland, "A Revised Chronology of Gandhāra Sculpture," *The Art Bulletin* xviii, 1936, pp. 387-400.

sculpture came into existence before the reign of Kanishka (128-160 A.D.). Considered as part of the stylistic development of the Late Antique world, there is every reason to suppose that the great majority of these so-called Graeco-Buddhist carvings are the result of a sudden and intensive mass production that began no earlier than the second century A.D. and was almost entirely the work of artisans imported from the Roman East; the "best" phase of this style corresponds to Roman and Syrian work of the time of Marcus Aurelius and Septimius Severus; later, it continues to reflect the final stages of classic sculpture in the fourth and fifth centuries; and ultimately it is reabsorbed into the Indian tradition. An omnipresent factor in Gandhāra sculpture is the necessarily non-realistic, abstract quality of Indian religious art which both contends with and ultimately supersedes the classical element, just as the ferocious and dynamic strength of barbarian design prevailed over antique naturalism in Europe.

The first Buddha-images to be made in northwestern India that are in every respect under Late Antique influence are dated in the late second and early third centuries A.D. All of the examples before this, and they are few enough, belong to an "archaic" phase of Gandhāra art that was in a way simply an extension of the old Indian school of sculpture to the northwest frontier.<sup>2</sup>

The two Buddha images, illustrated in figs. 1 and 2, which belong to this category, are of the greatest significance for this investigation, because we know the exact years of their dedication. These statues, from the sites of Loriyān Taṅgai and Hashtnagar (Chārsada), have on their bases inscriptions referring to the 318th and 384th year of an unspecified era.<sup>3</sup> Vogel<sup>4</sup> and Bachhofer,<sup>5</sup> taking this to refer to the Seleucid era of 312 B.C., have dated them at 6 and 72 A.D. respectively; Foucher, applying an otherwise unknown "Maurya era," beginning in 322 B.C., decided that the idols were made in 4 B.C. and 62 A.D.<sup>6</sup> As I have shown elsewhere,<sup>7</sup> there is no foundation for the use of either of these methods of reckoning in Indian chronology and a more likely era would be the Śaka era of 150 B.C., so that the images could be dated in 168 and 234 A.D.<sup>8</sup> A recent investigator of the problem, N. G. Majumdar, has even suggested the possibility that we have to do with the Vikrama (Mālava) era of 58 B.C.: the two Buddhas would then be placed in 260 and 326 A.D.<sup>9</sup> I believe it will be demonstrated by the comparisons to be made with Late Antique sculpture that only the two last possibilities can be seriously considered in fixing a proper date for these statues.

Before arriving at any definite conclusions, let us first examine the style of the statues themselves. In figure 1, the fragment from Loriyān Taṅgai, we see a standing Buddha figure, lacking head and hands and otherwise badly damaged; the canon of the proportions, were the statue complete, must have been something like five

<sup>2</sup> Rowland, *op. cit.*, pp. 391 ff.

<sup>3</sup> J. Ph. Vogel, "Inscribed Gandhāra sculpture," *Archaeological Survey of India, Annual Report*, 1903-04, pp. 244-245.

<sup>4</sup> Vogel, *op. cit.*, p. 259.

<sup>5</sup> L. Bachhofer, *Zur Datierung der Gandhāra Plastik*, Munich, 1925, p. 24.

<sup>6</sup> A. Foucher, *L'art Gréco-Bouddhique du Gandhāra* II, Paris, 1922, p. 484.

<sup>7</sup> Rowland, *op. cit.*, p. 391.

<sup>8</sup> S. Konow, "Kalawan Copperplate Inscription of the Year 134," *Journal of the Royal Asiatic Society*, 1932, p. 964 and *ibid.*, in *Epigraphia Indica*, April, 1932, p. 259.

<sup>9</sup> N. G. Majumdar, *A Guide to the Sculptures in the Indian Museum*, Part II, Delhi, 1937, pp. 19-20.





FIG. 1.—BUDDHA FROM LORIYĀN TĀNGAI DATED  
168 A.D. INDIAN MUSEUM, CALCUTTA



FIG. 2.—BUDDHA FROM CHĀRSADA DATED 234 A.D.



heads to the total height; the robe of the figure falls in a series of loops, or swags of drapery, trailing from the left shoulder in a series of curves across the chest and then in more deeply cut folds falling over the lower limbs in a monotonously repeated suc-



FIG. 3.—BUDDHA, WORCESTER ART MUSEUM,  
WORCESTER, MASS.

cession of ridges and depressions. The garment has a hardness and stiffness that makes it look as though it had been hammered out of metal and is a far cry from the soft, clinging togas of the Hellenistic and Augustan periods.

In the other Buddha image, which is sixty-four years later, the scheme of the folds is even more clearly readable. The most distinctive feature of the drapery of this and innumerable other Gandhāra statues is the drapery of the upper robe which falls—or, rather, hangs—in a stiff apron in front of the legs. This part of the garment is carved in a definite formula of rigid folds that in cross-section form a billowing pattern, but have very little to do with any actual drapery. The Gandhāra sculptors seem to have elaborated a very rigid formula of drapery design: almost invariably, as can be seen in the Chārsada figure and in the almost identical figure in Worcester (fig. 3), there is a series of five to eleven major folds of ridges below the waist that protrude like ribs against the dark background. This convention, even to the number of folds, is repeated over and over again so that, although carved from stone, the draperies might have been cast from an identical mould. This technique strongly suggests the presence of copy books, or *compendiariae*, within the guilds that wrought these statues.

If we search for classical prototypes for this treatment of drapery, it will

be apparent at once that we have to do with a development beyond the naturalistic presentation of a garment with easy, free and form-revealing folds that is characteristic of the Hellenistic period and of the carving of drapery in Roman art of the first century of our era. Taking into account the disparities arising from the way the

costume was worn, the robes of the Gandhāra Buddhas may be compared very well to the togas of the Roman Imperial statues. In the first place, the conception of the drapery is in both cases totally different from the function of the garment in Hellenistic sculpture: in a statue like the Sophocles of the Lateran—chosen as a typical Hellenistic draped figure—the robe models and defines the body, although it has a definite volume of its own. In the portrait statues of the early Imperial period, as, for example, the Marcus Calpurnius from Herculaneum and the bronze Mammus Maximus, there is a continuation of the Greek tendency to consider the drapery as a separate volume, something almost detached and playing little part in defining the body beneath: it is more like a deeply indented and dramatically arranged curtain hung in front of the figure.<sup>10</sup> The “Baroque” depth of the relief and the theatrical swing of the long, weighted folds reaches its culmination in a bronze statue from Ponte Sisto.<sup>11</sup> It is precisely from Roman draped portraits such as these that the Buddhas of Chārsada and Lōriyān Taṅgai ultimately derive. The treatment of drapery as a sort of “shield” in front of the body is well illustrated in the various reliefs of the Nirvāṇa. In these, although the Buddha is in a recumbent position, the folds of the robe are carved as for a standing figure.<sup>12</sup> The Chārsada image may further, however, be more directly compared to a second-century portrait in the Museo delle Terme in Rome.<sup>13</sup> Indeed, the earliest really close parallel for this detail of Gandhāra art is to be found in the reliefs of the Monument of Marcus Aurelius (161–180 A.D.) in the Museo dei Conservatori in Rome.<sup>14</sup> The schematization of the draperies in the figures of this relief is simply a further development of the tendencies already examined in the statues of the first century A.D. Taking into consideration the differences in costumes (toga and *saṅghatī*), it will be noted that the actual carving of the folds is remarkably similar: there is the same reduction of the garment to a series of ridges disposed in repeated parabolic loops; the crests of these ribs of drapery tend to be on the same plane. These tendencies become even more pronounced in the reliefs from the time of Septimius Severus (193–211 A.D.), notably the panel on the interior jamb of the arch of the money-changers and in certain individual figures from the arch in the Forum.<sup>15</sup> One could add to these a statue of Marcus Aurelius in the British Museum.<sup>16</sup> In all of these the drapery descends in a great cascade, with the border of the mantle raised so that it almost appears as a heavy swag separate from the rest of the garment, a feature that immediately suggests the deep trough of drapery that we have seen in the Gandhāra statues. An even closer parallel can be found in the drapery of the figures on the Asiatic sarcophagi, especially the frag-

<sup>10</sup> R. Paribeni, *Il ritratto nell'arte antica*, Milan, 1934, Tav. CLXVIII; K. Kluge and K. Lehmann-Hartleben, *Die antiken Grossbronzen* ii–iii, *Grossbronzen der Römischen Kaiserzeit*, Berlin, 1927, Tafel XX.

<sup>11</sup> Kluge and Lehmann-Hartleben, Taf. XXI.

<sup>12</sup> Foucher i, fig. 279.

<sup>13</sup> L. M. Wilson, *The Roman Toga*, Baltimore, 1924, fig. 48.

<sup>14</sup> E. Strong, *La Scultura Romana* 2, Florence, 1923, fig. 163; H. Stuart Jones, ed., *A Catalogue of the Ancient Sculptures Preserved in the Municipal Collections of Rome; The Sculptures of the Palazzo dei Conservatori*, Oxford, 1926, pl. 12.

<sup>15</sup> Cf. also a relief in the Palazzo Sacchetti (Strong, Tav. LXIII) and the carvings on the arch of Septimius Severus at Lepcis Magna (*AJA.* xlii, 4, 1938, pl. XIX-B).

<sup>16</sup> A. H. Smith, *A Catalogue of Sculpture in the Department of Greek and Roman Antiquities*, British Museum, London, 1904, iii, no. 1906, p. 161; J. J. Bernoulli, *Römische Ikonographie*, Stuttgart, 1882–94), ii, 2, p. 167, no. 13.

ment from Sagalassos<sup>17</sup> dated in the late second century A.D. In this we have a specimen of ribbed drapery, very close indeed to the Graeco-Buddhist convention.

It was apparently from prototypes such as these that the first generations of Eurasian craftsmen in Gandhāra developed the peculiarly limited formula that has been described above.

With this latter comparison, the question is raised for the first time whether or not Gandhāra art is an offshoot of Hellenistic sculpture in the East or whether we can say that it was influenced by Roman Imperial art. As will be apparent in the examination of a second type of Gandhāra drapery, both of these premises are true. There is nothing in the art of northwestern India of the first century A.D. to indicate an independent development towards either of the two forms in question: in other words, both the style of carving the toga in Imperial Rome of the second century and the even more abstract formulae developed in Asia Minor and Syria were introduced almost simultaneously—introduced presumably at a time when Roman trade with India was flourishing and to meet the demands for imagery in the revived Buddhism of Gandhāra.

This second type of drapery mentioned above is represented by a large number of Gandhāra statues: in these the folds are reduced to a series of strings, sometimes radiating from the left shoulder, sometimes falling in a succession of loops down the median line of the body, and in every case suggesting more a surface ornament than the definition of a real garment and its structure. The principal specimens of this type have been found at Paitāvā and Begram (fig. 4), in the vicinity of the ancient Kāpiśa in central Afghanistan.<sup>18</sup> To this class of sculpture there belongs also the 175-foot Buddha at Bāmiyān.<sup>19</sup>

We do know that this type of drapery found its way into the sculpture of the Gupta period at Mathurā, as evidenced by a dated image in the museum at Lucknow: the statue is from the Katra mound at Mathurā and is dated in the 230th year of Gupta or 549–550 A.D.<sup>20</sup> Are the Afghan statues as late as this, or is there any evidence for dating them earlier than the appearance of this form in Indian art? Both the Chārsada Buddha of 234 A.D. and another dated statue of 216 A.D. from Mamane Dherī show this type of string drapery almost fully evolved.<sup>21</sup> However, the evidence for dating all of the Afghan sites is extremely fragmentary and unsatisfactory: <sup>22</sup> the reliefs at Begram were found together with large quantities of Syrian glass of

<sup>17</sup> C. R. Morey, *Sardis* v, Pt. I, Princeton, 1924, fig. 96.

<sup>18</sup> J. Hackin, "Les travaux de la Délégation archéologique française en Afghanistan," *Revue des Arts Asiatiques* xii, 1, 1938, pl. VI, 21; *La sculpture Indienne et Tibétaine au Musée Guimet*, Paris, 1931, pl. XII.

<sup>19</sup> J. Hackin, A. and Y. Godard, *Les antiquités bouddhiques de Bāmiyān*, Paris, 1928, pls. IX, X, XI; B. Rowland, *The Wall-Paintings of India, Central Asia, and Ceylon*, Boston, 1938, fig. c; J. Hackin, "The Colossal Buddhas at Bāmiyān and their Influence on Buddhist Sculpture," *Eastern Art* i, 1928, pp. 109 ff., figs. 1–5.

<sup>20</sup> J. Ph. Vogel, "La sculpture de Mathurā," *Ars Asiatica* xv, 1930, pl. XXXI, a; Rowland, "Chronology," fig. 19, p. 399.

<sup>21</sup> Rowland, "Chronology," fig. 16, p. 396. A good example of this linear representation is to be seen in a Buddha in the Yale Gallery of Fine Arts inscribed "Gift of Eni."

<sup>22</sup> It is still customary to date the majority of the finds at Hadda on the basis of the fifth-century Byzantine coins found there a hundred years ago by Charles Masson (H. H. Wilson, *Ariana Antiqua* . . . with a *Memoir on the Buildings Called Topes*, by C. Masson, London, 1841, p. 110).



FIG. 4.—BUDDHA FROM BEGRAM, MUSÉE DE CABOUL, DAR-UL-AMAN, KĀBUL

the second or third century A.D. and ivory boxes of Indian Gupta workmanship;<sup>23</sup> beyond this we know that Kapiśa, the ancient Buddhist capital on the site of the modern Begram, was flourishing at the time of Hsüan-tsang's visit to the holy land of Buddhism in 632 A.D.<sup>24</sup> There are indications that stone sculpture was often replaced by work in stucco both in India and Afghanistan at a time probably no later

<sup>23</sup> J. Hackin, *Rev. des Arts Asiatiques* xii, 1, 1938, pls. I-IV; and *ILN*, August 6, 1938, pp. 252-253; J. Hackin, *Recherches archéologiques à Begram: Mémoires de la Délégation archéologique française en Afghanistan* ix, 1939, p. 10.

<sup>24</sup> S. Beal, *Buddhist Records of the Western World*, London, 1906, i, pp. 54-67.



than the mid-fourth century A.D., and it may be that we should tentatively take the year 350 A.D. as a *terminus post quem* for all the carvings in slate, including, of course, the pieces in question from Paitāvā and Begram.<sup>25</sup> The colossi at Bāmiyān are certainly earlier than Hsüan-tsang's visit in 632 A.D. How much earlier they could be is a vexing question. By comparison with Gandhāra statues, the smaller figure might be as early as the third century. It is not without relation to the statues of Loriyān Taṅgai and Chārsada. The larger (175-foot) colossus at Bāmiyān is the largest specimen of this—here, literally—"string" drapery, for, as M. Hackin has described it: "On the right thigh of the great Buddha the holes for the wooden pegs which supported the mortar (of which the drapery was made) still form a dotted line, indicating the original course of the folds of the monastic garments. Cords were stretched from one peg to the next and these cords are still to be seen in places. These pegs and cords served as a support for the lime mortar coating. In the spots where this support still remains, the drapery resembles padded ridges arranged in parallel lines from the left shoulder, diverging, however, from the parallel toward the centre of the breast to curve upward and return toward the right shoulder."<sup>26</sup> What appear to be Chinese imitations of this system of drapery are found in dated bronze images of 443 and 486 A.D.<sup>27</sup> and in the attendant figures in Cave 18 and Cave 22 at Yün Kang,<sup>28</sup> although in these the actual folds are flat and ribbon-like and not padded as in the Indian examples. The statue in Cave 18 at Yün Kang is dated 489 A.D., and the standing Bodhisattva of Cave 22 is probably to be dated shortly after the beginning of Tan Yao's activity in 454 A.D. Therefore, since both in style and in the concept of the gigantic Buddha as Mahāpuruṣa, equivalent to the universe itself, the colossi of Yün Kang are modelled on the great statues at Bāmiyān, it must be assumed that these latter must be earlier than 450 A.D.:<sup>29</sup> the Begram and Paitāvā figures, which are identical in style with the larger Buddha at Bāmiyān, must then date from this same period.<sup>30</sup>

The reduction of the classic drapery to a web of parallel padded pleats, frequently in bifurcated formations, that is so popular in Gandhāra sculpture, is nothing new in the Middle East: it makes its appearance in a terracotta by the artist Menophilos, which may be dated in the first century A.D.<sup>31</sup> Something of the same system may be seen in the figurines from Seleucia, which have been dated in the first century of our era and later.<sup>32</sup> It seems unlikely, however, that the style should have had its origin

<sup>25</sup> Sir J. Marshall, "Excavations at Taxila: The Stūpas and Monasteries at Jauliān," *Archaeological Survey of India*, Memoirs, no. 7, pp. 20-21.

<sup>26</sup> J. Hackin, "The Colossal Buddhas at Bāmiyān," p. 109.

<sup>27</sup> B. Rowland, "Notes on the Dated Statues of the Northern Wei Dynasty and the Beginnings of Buddhist Sculpture in China," *The Art Bulletin* xix, 1937, figs. 6 and 7.

<sup>28</sup> O. Sirén, *Chinese Sculpture from the Fifth to the Fourteenth Century*, London, 1925, pl. 43 (Cave 18, 489 A.D.) and pl. 54.

<sup>29</sup> The author is preparing a separate publication on the iconographical aspects of the colossal images at Bāmiyān.

<sup>30</sup> Foucher dates the colossi at Bāmiyān later than the huge stucco images of Takht-i-Bahi (second-third century A.D.) and earlier than the giant Buddhas of Yün Kang (fifth century A.D.) (A. Foucher, "Notice archéologique de la vallée de Bamiān," *Journal Asiatique* ccii, 2, April-June, 1923, p. 358).

<sup>31</sup> D. Burr, *Terra-Cottas from Myrina in the Museum of Fine Arts, Boston*, Vienna, 1934, p. 11.

<sup>32</sup> W. Van Ingen, *Figurines from Seleucia on the Tigris*, Ann Arbor, 1939, pl. XV, 106, no. 208; pl. LXXXVIII, 644, no. 1652.



in works of minor art, and we are therefore minded to search for its appearance in monumental statuary. Postponing for the moment the instances of this technique in Palmyra, we may find a suggestion of the familiar padded loops as early as the first century B.C. in the monument of Nimrud Dagħ<sup>33</sup> and again in the Parthian bronze statues recently discovered at Shami in southwestern Iran.<sup>34</sup> Stein, Godard, and Picard have all attributed these monumental bronzes to the Parthian period: certainly the resemblances of the head of the largest statue to the coin portraits of the Arsacid rulers seems to confirm such an attribution, which is further supported by the style of dress and the resemblance of the work as a whole to the few known examples of Parthian relief sculpture. A possible additional evidence for the dating of the Shami bronzes was the discovery with these Parthian royal statues of a Roman bronze head in a style strongly suggesting the portraiture characteristic of the period from the Republic to Augustus — approximately the time of the birth of Christ.<sup>35</sup> This type of drapery is not present in the sculptures of 32 A.D., on the frieze of the temple of Bel at Palmyra, but examples of it become more and more numerous in the grave reliefs of the first and second centuries from this site:<sup>36</sup> I mention only a fragment from Kasr-el-Abiad, dated 100–150 A.D. by M. Seyrig (fig. 5);<sup>37</sup> it ultimately appears in Rome itself on the reliefs of the Arch of Constantine of 315 A.D.<sup>38</sup>



FIG. 5.—TORSO, KASR-EL-ABIAD, SYRIA

<sup>33</sup> K. Humann und O. Puchstein, *Reisen in Kleinasien*, Berlin, 1890, Taf. XXXV, 4; XXXIX, 2.

<sup>34</sup> Sir M. A. Stein, "An archaeological journey in western Iran," *Geographical Journal* 92, 1938, p. 324, fig. 10; A. Godard, "Les statues Parthes de Shami," *Athâr-é Irân* 2, 1937, pp. 285–305, figs. 115–117, 129–131; C. Picard, "Courrier de l'art antique," *GBA.* 1939, pp. 232–234. <sup>35</sup> Stein, *op. cit.*, fig. 9.

<sup>36</sup> Cf. H. Ingholt, *Studier Over Palmyrensk Skulptur*, Copenhagen, 1928, pl. XI, 2, etc.

<sup>37</sup> H. Seyrig, "Antiquités Syriennes," *Syria* xviii, 1937, pl. I, pp. 34–36. <sup>38</sup> Strong 2, Tav. LXVIII.

Before taking up the question of the relation of the Near Eastern monuments just mentioned to the reliefs of Gandhāra, it is necessary to say something of the history of this peculiar drapery form. As the present writer sees it, this particular style represents a reversion to what could be called ancient Oriental forms, for reasons in part religious and in part technical.

It seems to me quite possible that the string drapery is a misunderstood development from the Hellenistic method of representing a thin, transparent upper garment by a series of ridges that still reveal the arrangement of the heavier dress below.<sup>39</sup> If only the system of portraying the outer robe were retained and the carving of the undergarment suppressed, we would get something like the familiar Late Antique formula of surface-carving in loops and padded "U's" that are found in Palmyra and Gandhāra. Some recollection of the original function of this ridged drapery seems to survive in India and Syria, in that, frequently in the depression between the padded loops, the drapery is carved into a sharp but low ridge, the crest of which parallels the direction of the enclosing string folds: in cross-section, then, the profile of the folds would be alternately round and sharp.<sup>40</sup> It seems not unlikely that the purpose of the subsidiary ridge was to indicate the presence of a garment underneath the outer robe represented by the padded folds, but generally, like the latter convention, it seems a mere surface decoration with no real functional purpose whatever.

Such a development as this could be said to go hand in hand with the general tendency to revert to ancient Oriental techniques—in this case, a return to the method practiced in all archaic art, indicating the drapery folds by lines incised on the surface of the body, without regard for the volume and substance of the garment. In the beginning, such an abstraction was part of the tradition of non-representational art in the Orient, in which almost mathematical rhythms in line and shape were used as substitutes for, or improvements on, nature. Such schematic and ordered interpretations were at once readable and more final than imitations of the casual and accidental shapes of actuality. Schematizations like the striations, "*Bögel-falte*," omega-folds, and chevron patterns, forms extremely beautiful in themselves, that we see in "archaic" periods of art, are not the result of ineptness in "naturalistic" portrayal of actuality, but are really concentrated and clarified mental images or mental creations of ideal schemes of folds which, even though they do not exactly follow any real drapery or garment, suggest what we could term a more or less universal or absolute system of folds—more final in the unity and perfection of its abstract arrangement than could be achieved by the imitation of an actual model.<sup>41</sup> The "ineptness" in such a system of representing drapery lies not in the

<sup>39</sup> As on the Skopai reliefs of the column drums in the temple of Artemis at Ephesus (G. Rodenwaldt, *Die Kunst der Antike, Propyläen Kunstgeschichte*, iii, Berlin, 1927, 433), or in a third-century draped figure from Magnesia, now in the museum of Constantinople (A. W. Lawrence, *Later Greek Sculpture*, New York, 1927, pl. 50), and cf. Van Ingen, pl. XV, 106, No. 208.

<sup>40</sup> This technical parallel with Palmyra is corroborated by the fact that in numberless examples, the Gandhāra figures are wearing jewelry of a completely Palmyrene type. Cf. M. Rostovtzeff, "L'art gréco-iranien," *Revue des Arts Asiatiques* 7, 1931-32, p. 209, n. 1; the adornments of others, especially the torques, are a continuation of the types of Graeco-Parthian jewelry found at Sirkap (Taxila).

<sup>41</sup> Mere inadequacy and naïveté is offered as an explanation for this type of drapery by G. Combaz in his *L'Inde et l'Orient Classique* (Paris, 1937), p. 120: "Le parallélisme et la convergence des plis sont

failure to copy nature, but rather in the relative success or failure to suggest within the limits of the self-imposed abstract formulae the essential nature—structure, organization, form—of the object by the realization of the mental image in the material. The linear drapery of the Late Antique period, as exemplified by the sculpture of Palmyra, Seleucia, and Gandhāra, surely represents not only a technical evolution from earlier classic types, but also a not unconscious return to the abstractions of earlier periods.<sup>42</sup> The ineptness or crudity of this, like other phases of Late Antique art, is due to the confusion of the traditional systems of abstraction with the naturalistic tendencies inherent in classical art everywhere. There is no more likely moment for the development of this peculiarly hybrid technique to have taken place than the epoch of the Arsacids, when we may imagine the Greek style introduced by Alexander's successors was being gradually absorbed by the still vital tradition of the ancient Orient.

Although the so-called loop or string drapery is already prophesied in Parthia and in the terracottas of Myrina and Seleucia, it does not attain its final development until the second century A.D. in the sculpture of Palmyra which was, we may be sure, like the whole civilization of this desert city, indebted equally to Rome and Parthia. This date fits in well with its appearance in Gandhāra images which, on other grounds, cannot be dated earlier than the first half of the third century A.D. The identity of the Palmyrene and Gandhāran drapery technique seems to exclude the possibility that the latter was developed independently: it appears on the contrary much more likely that this drapery formula was introduced ready-made, fully evolved, together with other types and techniques of Late Antique art around 200 A.D.

The great majority of the Gandhāra Buddhas have the sharply-cut features, the impassive, luminous beauty of the Palmyrene adolescents; the analogy extends to the technical device of representing the eyeball as slanting upward and outward under the lid; again, as in the Palmyra heads, the pupil is more frequently than not incised.<sup>43</sup> These, I need hardly point out, are mannerisms that again make their appearance in the clear, hard portrait sculpture of the Constantinian period. Dr. Scherman raises the question whether the "snail shell" curls that become part of the standard iconography of later Gandhāra Buddhas is an indication of Palmyrene influence "oder ob man . . . an verschiedenen Orten auf dieselbe Darstellung selbständig verfallen ist."<sup>44</sup> Although possibly the Indian traffic with Palmyra may have been responsible for a revival of this formula, the type of hair treatment in individual curls was so universal in India and the ancient Orient that it cannot justly be ascribed exclusively to Palmyra.

les caractères essentiels des premiers essais de draperie chez tous les peuples." This author, like so many other authorities, fails to see the aesthetic and philosophic reasons behind such forms which made men seek to improve and organize, rather than copy nature.

<sup>42</sup> It must, of course, be admitted that in many of the cruder examples of Late Antique carving, the methods of incision and linear stylization are just as often the result of technical incompetence as they are caused by the artist's deliberate purpose.

<sup>43</sup> The eyes of many of the Gandhāra images are of the completely Indian "lotus-petal" shape. Cf. Combaz, pl. 49, p. 112.

<sup>44</sup> L. Scherman, "Die ältesten Buddhadarstellungen des Münchener Museums für Völkerkunde," *Münchner Jahrbuch der Bildenden Kunst*, N.F. v, 1928, Heft 3, p. 68.

Again, it seems due to something more than accident that practically every known example of the standing Buddha in Gandhāra is carved in the proportion of five heads to the total height.<sup>45</sup> This is again the norm for the standing figures in the grave stelae and memorials of Palmyra and Dura-Europos: it applies likewise to the figure sculpture of the Constantinian period in Rome.<sup>46</sup> Originally a form of expressionism, the creation of figures with large heads was part of the general tendency toward spiritualization in the art of the Late Antique world; its purpose was to concentrate attention on the head as the most important part—perhaps as part of the new interest in the individual—to focus particularly on the huge, hypnotic eyes which were about the only device known to the classic world—likewise adopted from earlier Oriental sources to the Fayûm portraits—for expressing an other-worldly, ghostly feeling and one that contributes largely to the radiant quality of some of the better adolescent heads from Palmyra. The stylistic connections between Gandhāra and Syria seem to be more than amply confirmed by the new evidence of actual importations of Syrian glass discovered by M. Hackin at Begram.<sup>47</sup>

In closing, it will be appropriate to summarize the results to be derived from the comparisons made in the preceding paragraphs and to draw some general conclusions on the place of Gandhāra in the twilight of the Hellenic world. It is apparent that the art of Gandhāra was affected by waves of influences coming from the West—from Rome itself and the Eastern Roman Empire. This much is clear from the arguments advanced above. But something remains to be said about the spiritual forces—really of international character—that were active in Gandhāra, as in all the territories of Rome.

The changes that took place in late Roman art are attributed to the so-called “Orientalizing” tendencies already initiated in the Parthian period but temporarily arrested by the revival of Hellenism under Roman protection. In this process of disintegration the classic forms came to be conceived in a linear, frontal style that, in certain aspects, seems like a return to the archaic, or, perhaps, a survival of the archaic spirit in regions never completely dominated by Hellenic ideals; figures become isolated in their own atmosphere and take on an inhuman rigor; a luminous, spiritual quality animates mask-like faces with enormous eyes; the drapery is hardly more than a mesh of ornamental striations that, in accordance with the oriental tendency towards coloristic effects, is reduced to a design of sharp lights and darks. All these changes were obviously due more to change in point of view than to what is usually called “decadence.”

These tendencies toward loss of plasticity, disembodiment of form, linear organization and the great feeling for flat color and surface decoration are, on the one hand, the result of the transformation of Hellenistic art in the hands of peoples used to thinking of art in terms of textiles or metal work. Again, these same peoples,

<sup>45</sup> The measurement includes the *uṣṇiṣa*.

<sup>46</sup> See, for example, the figures in the Memes relief from Dura-Europos (*Excavations at Dura-Europos*, 1928, pl. IV, 1); the figure of Aphlad likewise from Dura (*Excavations at Dura-Europos*, 1931-32, pl. XIII), and, for the Palmyra figures, Ingholt, *op. cit.*, pls. 1, 2 and 3. The figures of Tetrarchs at San Marco, Venice, measure  $5\frac{1}{4}$  heads high; the Christ in the Psamatia sarcophagus about  $5\frac{1}{2}$ .

<sup>47</sup> J. Hackin, *Recherches archéologiques à Begram, Mémoires de la Délégation archéologique française en Afghanistan* ix, Paris, 1939, p. 10.



Semitic, Germanic, Celtic, Scythian, and Indian, were not originally accustomed to think of their gods in the anthropomorphic terms of the Greeks. The resemblance in the spiritualized "immaterial" look of Palmyra reliefs and the sculpture of the Danubian provinces is to be explained by just such a parallel in religious points of view. In Gandhāra and Iran, as in the Germanic colonies, the processes mentioned above were quickened by the existence of religious and racial temperaments that conceived their deities in abstract rather than representational, symbolic rather than concrete, terms. In the Christian world the opposition to naturalistic images was based partially on the Mosaic law, partially on the mistrust of the pagan gods or "demons."

Since these tendencies can be seen alike in Dura-Europos, Sofia, Trier, Gandhāra, and Roman Britain, there is no ground for attributing them entirely to "Oriental" influences, but rather to the reaction to classic art by "barbarian" peoples on the Rhine, the Danube, the Indus.

What may seem crudeness and ugliness in these works is due more to a change in point of view than to decadence: the preference for recording things seen and known by these various "barbarian" peoples, the attempts to express new life and action, mitigated against the continuation of the cold, perfect types of classicism.<sup>48</sup> When these latter are attempted, they are obviously adapted to artistic formulae intuitively known to their makers: the Palmyra reliefs are often strong and vital as spiritualized portraits—and this is true of certain Gandhāra Buddhas: the classic drapery has been reduced to the "archaic" Oriental pattern: the same dualism exists in "Graeco-Buddhist" sculpture, with the living ethnic portrait heads of Hadda and the usually cold masks of the Gandhāra Buddhas.

That this movement was already well under way in the East in the third century is exemplified by the fragment of the draped figure from Shapur, by the reliefs on the arch of Galerius, and, most strongly of all, in the sculpture of the school that was most largely responsible for the transformation: the Syrian centres of Palmyra, Dura, and Baalbek. One may compare with these carvings, reliefs from Sofia and Skoplje, stelae from Spalato and Aquileia, that appear almost as works of the same school.<sup>49</sup> In a funerary statue at Este we find the same bifurcated folds that are so marked a feature of late Gandhāra and early Chinese sculpture.<sup>50</sup>

In looking through the plates of publications like Ferri's admirable, but little-known works on Roman art on the Rhine and the Danube, one notices that the work is at once unified and diverse in quality: the crudeness, that is, a seeming technical incompetence, but really a persistence of the archaic or "traditional" point of view of some of the sculpture, might at first be regarded as deceptively "Mediaeval." Indeed, all of this provincial work—the best in Germany, Bulgaria, and India, to name but a few centres—does give a foretaste of the Mediaeval spirit; it represents a unity in which classic art, for the racial and religious reasons outlined

<sup>48</sup> It will be recalled that, much earlier, this point of view was held by Plotinus who preferred rude life to "marble beauty" (*Enneades* vi, 7, 22). The passage from Plotinus, as noted by Hinks (*Carolingian Art*, London, 1935, pp. 34–35), is of supreme importance, since it seems to record the discovery of the "soul" in Christian art.

<sup>49</sup> Cf. S. Ferri, *L'Arte romana sul Danubio*, Milan, 1933, figures 556–558, 392, 394, 395.

<sup>50</sup> Cf. S. Ferri, *Arte romana sul Reno*, Milan, 1931, figs. 77, 78.



above, has been transformed purposefully into very much the abstract formulae for space and the human figure that distinguishes western religious art at its moment of greatest tension—the Romanesque and Gothic periods.

The same luxurious Syrian emperors who installed the Oriental gods in the temples of Rome were also responsible for the introduction of ateliers of craftsmen from the same eastern provinces. The activity of Syrian workers in Gaul and Italy is well known; I have mentioned the part they played in the development of the Gandhāra school.

One can, if one insists on using the terminology of Strzygowski, think of this as a struggle between Northern and Southern, Mazdaean and Dravidian tendencies: actually, it is a case of the barbaric mind of the races in the Roman Empire and the Oriental mind producing the same result within the fabric of late classic art.

When these ideas of Roman Imperial art, or, better, Roman provincial art, triumphed even in Rome itself and Byzantium, the mentality of Mediaeval art was already fully evolved. It is not in the least startling to find parallels or prototypes of "Romanesque" or "Gothic" in the sculpture of Armenia and Gandhāra, since the characteristics later defined by these terms in Western European art had already come into being in these artistic provinces of the Roman Empire.

The resemblance between sculpture and sculptural patterns in Gandhāra, Palmyra, and Gaul must, in part, at least, be explained by trade and the rapidity of communications down the arteries of the Empire. That they were due in part to similar spiritual forces at work on the boundaries of Imperial Rome has been suggested.

BENJAMIN ROWLAND, JR.

## A PETROGRAPHIC EXAMINATION OF POTSDHERDS FROM ANCIENT TROY

### PLATES XIII-XIV

#### INTRODUCTION

DURING the course of the excavations carried out at the site of ancient Troy for the past several years by the University of Cincinnati, Dr. C. W. Blegen and his associates have made careful collections of soil samples from each of the different layers unearthed and also of the potsherds contained in these layers.

Both the soil samples and the potsherds have been submitted to the writer for petrographic study. It is hoped that the ultimate outcome of these studies will be such as to provide additional data useful in dating and correlating, in a manner hitherto neglected, the different horizons unearthed not only at Troy, but also in neighboring sites. The immediate objectives in the study of the potsherds are: (1) to ascertain the general characteristics of the material used in pottery of Trojan manufacture, so as to be able to distinguish local pottery from imported wares; (2) to determine if, during any period in Trojan history, the pottery used during that period had any distinct mineralogical and/or structural characteristics which could be used to distinguish the pottery of that particular period from that of previous and succeeding periods; and (3) to determine as much as possible about the technique of manufacture from thermal changes in some of the minerals and from structures within the ceramic body.

At the present time, studies, while by no means complete, have been made of sufficient potsherds to reveal a number of interesting facts, some of which may be useful to a high degree. Hence a short non-technical summary report setting forth some of these data is believed to be desirable at the present stage of the study.

#### SUMMARY

It has been determined (1) that pottery of local manufacture contains as the coarser elements of the paste certain rock and mineral types native to the geological formations of the region drained by the Menderes River; (2) that, in addition, certain of the settlements have unique rock and mineral types as the coarser elements of the materials used in their pottery; (3) that there is a definite, though not entirely clean-cut, progression in the internal texture and structure of the sherds from a coarse, porous aggregate of clay and "tempering" material having no preferred orientation of fragments within the paste, in the earlier horizons, to a fine-grained, dense, thin-walled sherd in the later horizons. These latter sherds commonly possess an alignment of platy and rod-like rock and mineral fragments in a structure akin to "flow structure" as seen in some rock types. While some tendency toward such an internal structure would result from many methods of manufacture, it is believed that the high development of "flow structure" results from plastic deformation within the paste as the vessel is shaped on the potter's wheel. (4) "Foreign" sherds can be distinguished from those of local make by

means of (a) rock and mineral types used as the coarser elements of the paste, and, (b) different types of clay and different shaping and firing techniques from those characterizing local ware. (5) The degree to which the different sherds were fired can be estimated in a qualitative manner by observing (a) whether the clay matrix has been partially vitrified or not; (b) whether or not calcite has been thermally dissociated; and (c) whether or not there have been any thermal changes in minerals such as quartz.

#### GENERAL/PETROGRAPHIC CHARACTERISTICS OF TROJAN POTTERY

Under the microscope, ceramic bodies of the type found at ancient Troy appear not unlike some types of rock and are easily studied by ordinary petrographic methods. Thin sections of the sherds exhibit small fragments of rocks and minerals from the size of small pea gravel in the coarser ware, down to fine sand sizes set in a matrix of burned silt and clay. The internal structures and textures of the sherds vary with the size, shape, and relative amounts of these coarse fragments, and with the amount, size, and shape of steam cavities and other pore space. In general, the sherds from the older settlements tend to contain large amounts of sand and granule sizes of several rock and mineral types. In many cases about sixty per cent of the ceramic body is made up of this material. These fragments, in the oldest sherds, commonly show the rounding effects of stream action and are taken to be original constituents of the detrital silts and not added tempering material. From Troy II on through the later horizons, the size of the detrital fragments decreases, probably as a result of purification processes worked upon the clay, and materials such as broken fragments of shells and small pieces of discarded pottery are introduced as tempering material. Also beginning with Troy II, the coarse fragments in the paste which are of an elongate or platy nature tend to be aligned in directions parallel to the walls of the vessel in a pseudo "flow structure" which becomes very pronounced in the sherds from the latest of the settlements.

Certain lithologic types are characteristic of the Trojan ware. Besides the ubiquitous quartz, orthoclase, several varieties of medium to acid plagioclase, muscovite mica, and other minerals to be expected in a detrital silty clay, several somewhat unusual rock types occur. Perhaps the most striking of these are fragments of quartzite, the individual grains of which interlock in intricate sutured contacts. Comparatively large fragments of this rock are particularly abundant in sherds from Troy I, but are also found in sherds from early II, III, IV, V, middle VI, late VI, VIIa, and in some of the sherds from VIII. Note the large grains of this rock shown in figures 2 and 4, plate XIII. The source of this particular rock is probably the zone of metamorphic rocks near the headwaters of the Menderes River.

A second characteristic rock fragment found in Trojan sherds is a green hornblende trachyte porphyry. Fragments of this rock are not common except in the sherds from early Troy II, but the detached, strongly pleochroic, green hornblende phenocrysts from this rock are found in some of the sherds from Troy I, early VI, and in a few sherds from several other horizons.

Also found in sherds from several of the settlements are fragments of a highly indurated siltstone and small fragments of a strongly foliated mica schist, supposedly from the same regions as the sutured quartzite.

The fine-grained matrix in which these rock and mineral types are set is not simply a thermally altered pure clay substance, but consists of a very complex mixture of silt-sized quartz and feldspar particles, abundant small mica flakes, finely divided calcium carbonate, small amounts of hydrated ferric oxides, clay minerals, and a host of minor miscellaneous constituents. Owing to the relatively high content of  $\text{CaCO}_3$  and to the presence of hydrated  $\text{Fe}_2\text{O}_3$ , the clay matrix in these ceramics had a tendency to flux at fairly low temperatures. Even at temperatures reached in firing some of the oldest sherds, some incipient vitrification can be noted, affecting portions of the clay matrix. This is not true for all sherds, however, as many of the Troy I and early II sherds exhibit no signs of vitrification in even its earliest stages. In the case of the vessel used as a crucible (note figure 1, plate XIV) by the inhabitants of Troy III, the "clay" was largely fused to glass, and large grains of feldspar and even quartz were chemically attacked by this fused matrix.

As has been stated above, the internal structures of the sherds show a series of changes from the earlier to the later horizons. The sherds of pottery from Troy I exhibit, in addition to the coarse rock and mineral fragments within the paste, a considerable porosity. This pore space may, in some instances, be as much as twenty per cent of the area of the section examined. Commonly these vesicles are elliptical or spherical in shape and are thought to be the result of the expansion of water vapor and included air during the drying processes and the early stages of firing. The pore spaces range in size from about the magnitude of the tempering grains down to microscopic vesicles and cracks less than 0.01 mm. across. As is the case with the coarser particles in the paste, these vesicles show no alignment or elongation in a preferred direction. The surfaces of the Troy I vessels are smooth and burnished, but in no instance yet observed has a true slip been noted on the Troy I sherds. Their smooth surfaces are the result of bringing the fines of the clay matrix to the surface by patting and rubbing the surface of the still moist vessel with a small paddle, as is clearly shown by surface markings.

Beginning with the sherds from early Troy II and continuing through the different horizons to Troy IX, there is a definite progressive change toward smaller grain size for the tempering material, less porosity, and an increasing tendency toward a "flow structure" within the paste. While there are notable exceptions to this progressive change, particularly in Troy II and in Troy VIIb, the general nature of this change can be noted by comparing the photomicrographs on the accompanying plates.

#### PETROGRAPHIC CHARACTERISTICS OF SHERDS FROM SOME SPECIFIC HORIZONS

One of the objectives of the study made upon these sherds is to determine if some of the horizons were characterized by sherds that possess a distinct and unique set of petrographic properties which would enable one positively to identify a sherd as belonging to that particular horizon. At the present stage of the study there appears to be little likelihood of such good fortune being very widespread. However, certain horizons do possess distinctive properties which seem to be unique. The outstanding case is to be found in connection with the very coarse, heavy ware associated with Troy II. These particular sherds contain coarse fragments (up to 10 mm. in diameter) of an altered light-colored amphibole, and equally large fragments of

strongly altered orthoclase feldspar. These large fragments, obviously having their origin in a hydrothermally altered granitic terrain, are not found in any other sherds from any of the horizons.

A second, though not such an outstanding example, is furnished by the sherds from early Troy II. An important constituent of the coarse material in the paste of these sherds is the previously mentioned trachytic lava rock containing phenocrysts of bright green hornblende. In sherds from this horizon, fragments of the rock, and not just the detached phenocrysts, are quite abundant and fragments of materials such as the sutured quartzite, while present to some extent in some of the sherds, are not nearly so abundant as in Troy I, or as in some of the later horizons. It might be inferred from this fact that the detrital silts used in the pottery of this particular settlement were obtained from other sources than those of previous and succeeding horizons—perhaps from the floodplain of the smaller stream to the north of the site.

None of the other horizons possesses readily recognized distinct lithologic or mineralogic elements and the structural differences are too progressive to be of value in close differentiation. When data are available from the study of many more sherds, perhaps more distinct properties can be assigned to pottery of each of the horizons, but at present this can not be done except in the limited way outlined above.

#### RECOGNITION OF FOREIGN POTTERY

The recognition of pottery of foreign manufacture by means of petrographic study has, to date, been a comparatively simple task. The basis upon which this recognition can be made is primarily the nature of the tempering material, but such things as the nature of the clay, the internal texture and structure, vastly improved shaping, firing, and decorating techniques all tend to produce sharp differences in petrographic characteristics from those of local wares. For illustrative examples of how striking these differences may be, note figures 3, 4, and 5, plate XIV.

Figure 3 illustrates a fragment of an altered basaltic lava rock, a type comprising a considerable proportion of the tempering material used in this sherd, a foreign type from late Troy VI. None of the usual tempering materials which characterize local wares occur in this sherd and its unique rock types have not been noticed in any other sherd as yet studied from Troy. Fine flakes of muscovite or sericite mica make up a considerable proportion of this clay which is, to a high degree, free from the multiplicity of detrital mineral types characterizing the local "clays."

Figure 4 illustrates a section, cut normal to the walls of a sherd from Troy IX, which has been identified on the basis of its megascopic characteristics as being of Roman origin. Petrographically this sherd is entirely different from any of the others examined. The tempering material consists of relatively small percentages of small grains of orthoclase and plagioclase feldspar and some small fractured angular grains of quartz. The clay of the paste is very high in muscovite mica which is aligned in a sub-parallel manner with the walls of the vessel. A thin coating of fine-grained clay (slip) on both the inside and outside surfaces of the



sherd has been partially vitrified. The clay of this slip is entirely different from the clay of the paste. The percentage of pore space is low and the pores are small and greatly elongated parallel to the walls of the vessel.

Figure 5 is a photomicrograph of a section of a sherd which has been determined megascopically as being of Byzantine origin. The section has been cut normal to the walls and preserves such structures as the surface glaze. The materials used as the coarse temper include the ordinary orthoclase and plagioclase feldspars, considerable quartz, a large amount of black biotite mica, and some calcite, both in the form of individual crystals and as shell fragments. The characteristic tempering materials of the Trojan sherds do not occur. This particular sherd exhibits the most complicated manufacturing technique of any examined to date. The paste has been covered with a fine-grained white underglaze and fired, after which a pigmented glaze has been added and fired so that the glaze has fused and to some extent flowed.

#### TECHNIQUE OF MANUFACTURE AS REFLECTED IN PETROGRAPHIC PROPERTIES

It is possible by means of petrographic study to acquire otherwise unobtainable data regarding techniques used in the manufacture of the pottery. Some of the data thus obtained and their probable interpretation will be outlined in the following paragraphs.

The very nature of the materials used in Troy I and in some of the early Troy II sherds shows that detrital silts were used without any purification processes being applied. The coarse sand and granule sizes of detrital rock and mineral fragments served as temper for the finer silt and clay fractions, so that the necessity of added temper was obviated. The lack of internal preferred orientation and the haphazardly distributed high porosity indicate a minimum of working during the shaping processes. Firing was done mostly in a reducing atmosphere, resulting in pottery of various shades of gray due to the reduction of iron to the ferrous state and the deposition of unburned carbon within small cracks in the ceramic body. The temperatures reached during the firing process were probably never in excess of 573° C. for any length of time in these earliest sherds, as the comparatively large fragments of alpha quartz, common in these sherds, are not cracked and strained in the characteristic manner which accompanies the 2 per cent volume change to beta quartz at this temperature.

Beginning, as previously mentioned, with some of the sherds of early Troy II, the internal structure shows a preferred orientation of elongate elements within the paste, a pronounced lessening in the amount of pore space, and a decrease in the size of the individual pores. Usually the pore spaces are elongated in a direction parallel to the walls of the vessel. These facts are taken to indicate more working of the paste as it was shaped into the vessel. The internal alignment of elements within the paste into a pseudo "flow structure" is taken to be a result of packing and deformation of the mass as it was worked into shape on the potter's wheel. Internal structures of this type would indicate that the wheel came into use during the time of early Troy II.

The sherds of Troy II, excluding the previously mentioned coarse ware, are the first to show tempering materials which are definitely not original constituents of

the river silts and clays used for the making of this pottery. This added temper consists, in a few sherds, of ground-up fragments of older pottery ("grog"). In one case, charred remnants of straw were noted. The use of shell fragments for temper starts with early Troy II and continues through Troy IX.

The clays used in the sherds of Troy III and in most of the sherds from later horizons show evidences of having been purified by some sort of washing process which has removed the coarser sand and silty elements to a considerable extent and thus increased the relative amounts of fine-grained mica, finely divided calcium carbonate, hydrated iron oxides, and the true clay minerals. This purification was probably accomplished by mixing the unrefined clay with an excess of water in a vessel and allowing sedimentation to take place for a short period. The desired clay could then be decanted and the coarser elements left behind and discarded. The clay thus obtained could then be tempered in any way desired, so as to possess the maximum of good qualities as regards workability, shrinkage, etc. The temper added apparently consisted of the same material taken from the clay during the purification process, but broken and ground to finer sizes. In addition, such materials as shells, grog, and, apparently in some instances, straw were used.

With clays of this type a noticeable vitrification has taken place at a temperature below the inversion point of alpha quartz, and a few sherds show the clay matrix to be largely vitrified to an optically isotropic glass which includes unaltered particles of mica, quartz, feldspar and some calcite. Thus this glass, even when formed above the quartz inversion temperature, as is the case with a few sherds of middle VI and later horizons, has formed at temperatures less than the thermal dissociation point of  $\text{CaCO}_3$ , since particles of shell temper and small (0.25 mm.) crystals of calcite show no signs of having undergone thermal disintegration.

Only a few of the sherds thus far examined have been fired above the temperature required to dissociate calcite thermally and it is believed not improbable that these cases were accidental. The first of these occurs in middle Troy VI and a few are found in each of the later horizons. One exception to the foregoing statement must be made in regard to the Troy III vessel used as a crucible, in which metals containing copper had been melted. In this particular vessel the firing range of the clay had been exceeded for prolonged intervals of time and considerable vesiculation has taken place. The glass formed by the fusion of this clay has attacked feldspar and quartz, and some of the silica has combined to form copper silicate which fills some of the vesicles in the glass.

As regards oxidation-reduction conditions of firing, not much can be added to what can be determined by megascopic observations. The sherds of Troy I were fired under conditions which were apparently rather loosely, if at all, controlled, since a single sherd may show portions somewhat oxidized and the rest strongly reduced. Starting with Troy II and including all subsequent horizons, apparently much better control could be maintained. A frequent device in the decoration of the ware was to employ the reds and yellows produced by oxidation, or the grays and blacks produced by reduction, as a background for more surficial decoration.

Paints, glazes, and slip coatings have not yet been studied in enough detail to

admit of any statements regarding their chemical nature. They are being studied at present and will be reported upon at a later date.

#### CONCLUSIONS

Petrographic examination of sherds carefully taken from archaeological sites can be a useful adjunct to the usual methods of study applied to them. For sherds from the sites in the southwestern part of the United States, rather complete studies have been made by Kidder and Shepard,<sup>1</sup> but, so far as the writer has been able to ascertain, no comparable work has been done on material from sites in the Aegean area.

Data which can be added by such petrographic study lie mainly in the fields of (1) mineralogical constitution, and (2) internal textures and structures. From interpretation of such data much can be learned about (1) the source of the materials used in the pottery, and (2) the techniques of manufacture. The use of these last interpretations is the job of the archaeologist and not of the petrographer.

For such work to be of lasting value, a statistical analysis of data compiled from an examination of as great a number of authentic sherds as possible is necessary. Complete petrographic analyses are being made of selected sherds recovered at Troy. These will be made available as soon as completed, and it is hoped that similar work will be done at other Aegean sites, so that some correlation using these data may be attempted.

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#### EXPLANATION OF PLATE XIII

- Figure 1. Photomicrograph of a section, cut at right angles to the walls of a typical Troy I sherd. Note size and arrangement of the coarse particles and porosity within the paste. Plane polarized light, magnification 45 diameters.
- Figure 2. Same as figure 1, except viewed between crossed nicols. Note the sutured nature of the contacts between the individual quartz grains in the large fragment of quartzite near the center of the field. Magnification about 30 diameters.
- Figure 3. Photomicrograph of a section, cut normal to the walls of a sherd from Troy II. Note the tendency toward alignment of the coarse particles. Plane polarized light, magnification 45 diameters.
- Figure 4. Same as figure 3, except viewed between crossed nicols. Note the hornblende and plagioclase feldspar. Magnification 30X.
- Figure 5. Photomicrograph of a section, cut normal to the walls of a sherd from Troy VIII. Note the strongly developed alignment of the coarse fragments. Plane polarized light, magnification 45 diameters.
- Figure 6. Same as figure 5, except viewed under crossed nicols. Note the smaller size of the tempering grains and the greater density of the paste. Magnification 30 diameters.

#### EXPLANATION OF PLATE XIV

- Figure 1. Photomicrograph of a section, cut from a crucible from Troy III. Note the vesiculated glassy paste, the chemically attacked feldspar grain and areas of copper silicate. "F" indicates a grain of feldspar. Plane polarized light, magnification 45 diameters.
- Figure 2. Photomicrograph of a section, cut normal to the walls of a shell-tempered sherd from late Troy VI. Note the sections of shells and the high degree of alignment possessed by elements within the paste. Plane polarized light, magnification 45 diameters.

<sup>1</sup> A. V. Kidder and A. O. Shepard. "The Pottery of Pecos," Yale University Press, 1931.

- Figure 3. Photomicrograph of a section, cut normal to the walls of a sherd from late Troy VI, suspected of being of foreign origin. Note the large fragment of altered basic lava rock—a type found only in this sherd. Nicols crossed, magnification approximately 30 diameters.
- Figure 4. Photomicrograph of a section, cut normal to the walls of a sherd of probable Roman origin from Troy IX. Note the extremely fine-grained nature of the paste, the high mica content, and the degree of alignment of elements within the paste. Note the surficial "slip" layer. Plane polarized light, magnification 45 diameters.
- Figure 5. Photomicrograph of a section, cut normal to the walls of a sherd of Byzantine origin. Note the coarser character of the paste as compared with that of figure 4. A thin white underglaze, approximately 0.1 mm. in thickness, separates the paste from the true glaze, remnants of which are shown on the extreme right of the section. Plane polarized light, magnification 45 diameters.

## AN ORIGINAL WORK OF ENDOIOS

IN THE last twenty years scholars have begun to use the evidence gained from a comparison of Attic vase-paintings with the contemporary sculptural remains for the stylistic interpretation and for the more accurate dating of both classes of monuments.<sup>1</sup> The epigraphical evidence, however, has been utilized only in a very few instances.<sup>2</sup> The famous Potter Relief from the Akropolis (fig. 1) is a good example of a monument for the interpretation of which the three-fold evidence may be employed to good advantage.<sup>3</sup> As sculpture, the relief is one of the masterpieces of late archaic art; the vase held in the hand of the potter is a faithful copy of contemporary kylikes; the inscription reveals both in its text and in its lettering the artist of the monument.

### I. THE NEW FRAGMENTS

To the seven fragments which were found in 1887 two more can be added now, but no photographs showing their place in the relief are as yet available.<sup>4</sup> The restored drawing (fig. 2) is based on two separate photographs and a drawing, all much smaller in scale.

One of the newly added fragments (EM 6520) has been known for almost fifty years. It was first published by H. G. Lolling, who thought that it belonged originally to an archaic Ionic capital and that the inscription was of later, probably Roman, date.<sup>5</sup> R. Heberdey made a drawing of this fragment (fig. 3), and he, too, thought that it was part of an Ionic capital. The fragment joins the top of the Potter Relief on the right side and contains the central part of the architrave, with the cutting for an akroterion on its top. The shape of the cutting, an annular depression, indicates that the akroterion was of bronze. It may have been in the form of a bronze vase, an appropriate decoration for the offering of a potter.<sup>6</sup> The relief was crowned not only by a central akroterion, but also by two lateral finials made of marble and set into square cuttings. The socket for the right akroterion is preserved on top of the Potter Relief,<sup>7</sup> and these lateral akroteria may have consisted of some kind of sculptured ornament.

<sup>1</sup> The pioneer work was done by Gottfried von Lücken, *Archaische griechische Vasenmalerei und Plastik* AM. xlv, 1919, pp. 47-210, and by Ernst Langlotz, *Zur Zeitbestimmung der strengrotfigurigen Vasenmalerei und der gleichzeitigen Plastik*, 1920.

<sup>2</sup> A characteristic example of the way in which epigraphical evidence has been treated are E. Löwy's two papers *Zur Datierung Attischer Inschriften*, 1937, and *Der Beginn der rotfigurigen Vasenmalerei*, 1938; see the review in *AJA.* xliii, 1939, pp. 710-713. Quite different is W. B. Dinsmoor's "The Correlation of Greek Archaeology with History" in *Studies in the History of Culture*, pp. 185-216.

<sup>3</sup> See W.-H. Schuchhardt in H. Schrader, *Die archaischen Marmorbildwerke der Akropolis*, pp. 301-302, and pl. 176; compare C. Picard, *Manuel d'Archéologie grecque, La sculpture* ii, pp. 22-23, 902.

<sup>4</sup> This combination should be added as no. 19 to the list published in *AJA.* xlv, 1941, p. 70. See the summary in *AJA.* xlv, 1942, p. 123.

<sup>5</sup> Κατάλογος τοῦ ἐν Ἀθήναις Ἐπιγραφικοῦ Μουσείου i, no. 359.

<sup>6</sup> Several inscribed bases of early Attic dedications have on top circular sockets which may have received stone vases; the inscriptions are published as *IG.* i<sup>2</sup>, 543, 600, 643, and 671. The names of the dedicators of these monuments are those of potters or painters: Aischines, Kephelos, Smikros, Xenokles; see *Bull. de l'Inst. Arch. Bulgare* xii, 1939, p. 144, note 5.

<sup>7</sup> See H. G. Lolling, *op. cit.*, no. 281; G. Dickins, *Catalogue of the Acropolis Museum* i, p. 272, no. 1332.





FIG. 1.—THE POTTER RELIEF

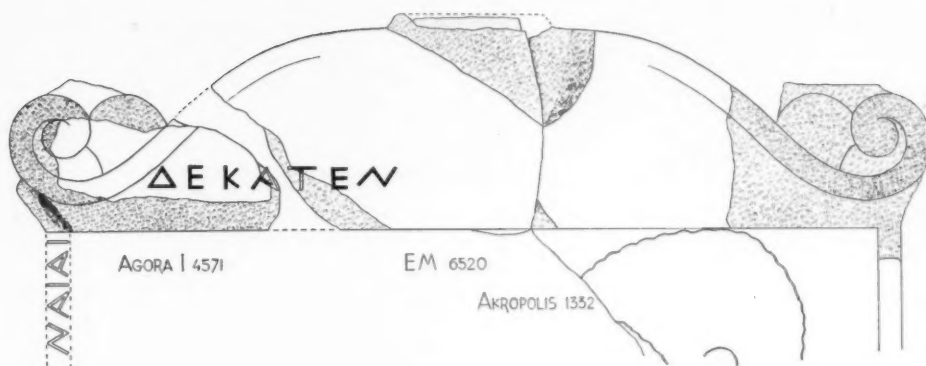


FIG. 2.—TOP OF POTTER RELIEF

The second of the newly added fragments comes from the American Excavations in the Athenian Agora (fig. 4).<sup>8</sup> Since the fragment was found in surface soil, it may

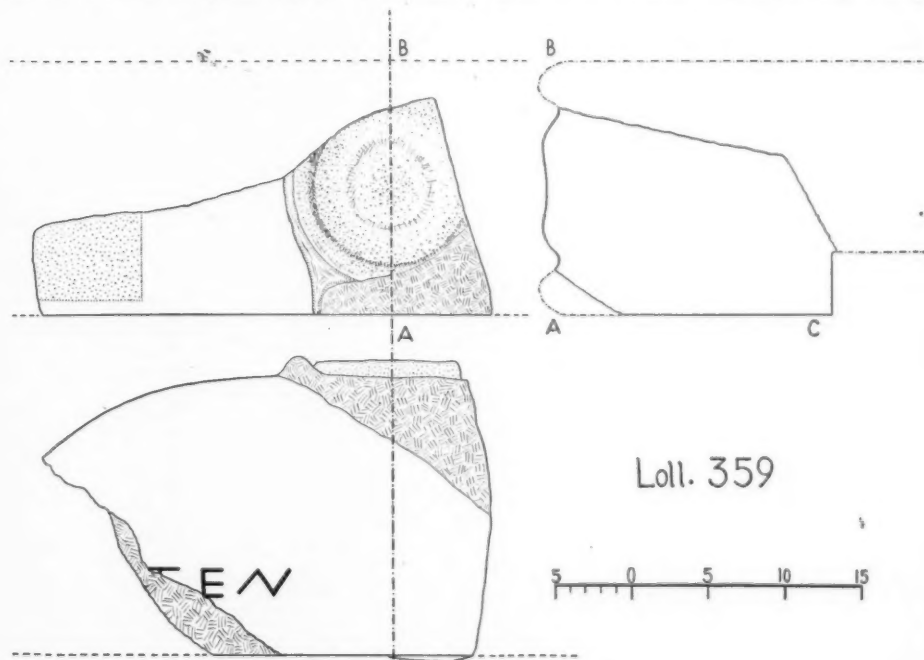


FIG. 3.—FRAGMENT OF POTTER RELIEF

<sup>8</sup> It was discovered on March 3, 1937, north of the modern street, in Sector OA, directly below the north slope of the Akropolis; the Inventory Number of the fragment is I 4571. The following information is provided by the filing card: Part of the top and of the left side is preserved; below the inscribed face appears to be the top of a recess. The fragment seems to be the upper left corner of a stele or monument with an elaborate system of decorative mouldings. Much red color is still preserved in the inscription.

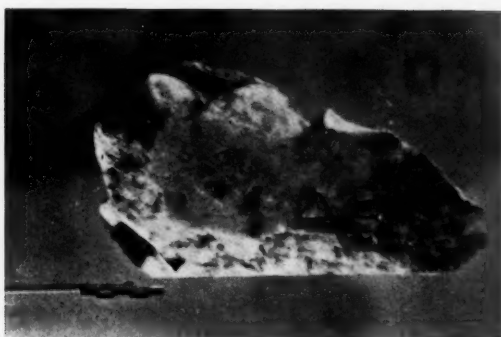


FIG. 4.—FRAGMENT OF POTTER RELIEF



FIG. 6.—TOP: IG. i<sup>2</sup>, 978; BOTTOM: NEW FRAGMENTS OF POTTER RELIEF



FIG. 7.—END OF SIGNATURE ON POTTER RELIEF

have been thrown down the north slope of the Akropolis during the great excavations in the eighties, rather than in antiquity. The restored drawing (fig. 2) may seem to indicate that the two new fragments do not actually join, but an examination of the fragments themselves might prove that the one from the Agora fits the other piece and that it preserves traces of the socket for the left akroterion. The whole crowning member of the relief was certainly decorated with a painted ornament, but its restoration must remain quite hypothetical, since only faint traces are visible on the small photograph now available (fig. 4).

The inscription previously known to have run along the left margin of the relief<sup>9</sup> is now shown by the new fragments to continue on the left side of the crowning member. This fact recalls the suggestion made by F. Studniczka<sup>10</sup> that the inscription may have begun near the very bottom of the margin, and that the letters



FIG. 5. — DEDICATORY INSCRIPTION OF POTTER RELIEF

thought to be part of the dedicator's name belong to that of his father. It now seems likely that the stone-cutter engraved the last word of the dedicatory inscription above the relief because there was no space left on the margin itself.<sup>11</sup>

Various restorations of the dedicator's name have been suggested; they all agree in the assumption that the potter who made this impressive offering must have been one of the masters whose name is known from his signatures.<sup>12</sup> Of the first preserved letter only the lower part of a slanting stroke remains (fig. 5). This stroke may belong to one of the following letters: alpha, gamma, kappa, mu, rho, sigma, chi. The uneven spacing of the letters in the preserved part of the inscription makes it impossible to determine the exact number of letters which may be restored between the lower end of the margin and the first preserved letter: [ca. 12] \ 105 : ἀνέθεκεν [ : τάθηναι ] | δεκάτεν.<sup>13</sup>

<sup>9</sup> *IG*. i<sup>2</sup>, 718.

<sup>10</sup> Reported by E. Langlotz, *op. cit.*, p. 92.

<sup>11</sup> This conclusion, however, is not cogent, as is shown by another dedicatory inscription from the Akropolis (*IG*. i<sup>2</sup>, 607; see *Hesperia* viii, 1939, p. 156, no. 2) which begins at a considerable distance from the left edge but turns around the corner at the end of the line. Moreover, the position of δεκάτεν above that part of the relief which had no carving may have special significance. For Langlotz assumed (see W.-H. Schuchhardt, *op. cit.*, p. 301) that this part of the relief contained the painting of a stand with vases upon it, signifying that the tithe (δεκάτη) was derived from the sale of such objects.

<sup>12</sup> See A. Furtwängler, *Aegina*, p. 495.

<sup>13</sup> Another possible restoration is [ca. 12] \ 105 : ἀνέθεκεν [ : ἡο κεραμεύς ] | δεκάτεν.



## II. THE DATE

The dating of the Potter Relief is based on the style of the relief itself, on the letter forms of the inscription, and on the shape of the kylix in the hand of the potter. The profile of the kylix with its offset rim has been interpreted in different ways by A. Furtwängler and by H. Payne.<sup>14</sup> Furtwängler compared the kylix both with preserved vases and with representations of kylikes on red-figured vase paintings.<sup>15</sup> Payne, however, declared that this type of kylix went out of fashion between 530 and 520 B.C., and he therefore suggested this decade as the probable date of the Potter Relief.<sup>16</sup> In a recent study of the shapes of Attic kylikes H. Bloesch connected the cup on the Potter Relief with one particular class of kylikes, the earliest example of which is dated at the end of the sixth century.<sup>17</sup>

The letter forms of the inscription have only once been used for the dating of the whole monument.<sup>18</sup> E. Löwy declared that the forms of the letters alpha, epsilon, theta, and nu date the relief in the Kimonian period, ca. 460 B.C., and that the four-stroke sigma would indicate an even later date.<sup>19</sup> It is hardly necessary to point out that Attic inscriptions of the two decades preceding 450 B.C. have an entirely different appearance. The letter forms of the inscription on the Potter Relief, which Löwy took as evidence for a date near the middle of the fifth century, are rather characteristic for inscriptions which are either Ionic or influenced by Ionic writing.<sup>20</sup> Of particular interest may be a comparison of the inscription on the Potter Relief with the preserved signatures of the sculptor Endoios.<sup>21</sup> One of these inscriptions (*IG. i<sup>2</sup>, 978*), although written in the old Attic alphabet, may have been engraved by the same hand as the inscription on the Potter Relief (*fig. 6, p. 248*);<sup>22</sup> the Endoios signature agrees with the inscription on the Potter Relief in the forms of the letters epsilon and nu, and particularly in the deeply cut grooves of the strokes. Both the Archermos inscription (see note 20) and the Endoios signatures belong to the last quarter of the sixth century, and the Potter Relief may be assigned to the end of the same period.

Only a few words may be added concerning the style of the relief itself. Payne

<sup>14</sup> A. Furtwängler, *op. cit.*, pp. 494–495; H. Payne and G. M. Young, *Archaic Marble Sculpture from the Acropolis*, p. 48, and pls. 129–130.

<sup>15</sup> The cup illustrated on an amphora of the Berlin Painter clearly shows that this type of kylix was well known at the beginning of the fifth century; see J. D. Beazley, *Der Berlin Maler*, pl. 14 a.

<sup>16</sup> The kylikes which Payne compared with the cup on the Potter Relief are apparently the so-called Droop Cups, the Attic origin of which, asserted by E. A. Lane (*BSA. xxxiv, 1936, p. 152*), seems to be assured, since Beazley discovered the signature of Nikosthenes on one of them (*JHS. lv, 1935, p. 81*). It may be worth mentioning that the workshop of Nikosthenes was probably taken over by the potter Pamphaios (see *RE. s. v. Nikosthenes*) and that [Παμφαῖος] is one of the possible restorations of the dedicator's name on the Potter Relief.

<sup>17</sup> *Formen attischer Schalen*, p. 144.

<sup>18</sup> The remarks made by H. Lechat (*Sculpture attique avant Phidias*, pp. 365–366) and E. Langlotz (*op. cit.*, p. 93) may be disregarded here because they are too general.

<sup>19</sup> *Sb. Akad. Wien* 217, Abh. 2, 1938, p. 95; see above note 2.

<sup>20</sup> See the Archermos inscription illustrated by J. Kirchner, *Imagines*, pl. 6, no. 13.

<sup>21</sup> *IG. i<sup>2</sup>, 492, 978, 983*; see *JOAI. xxxi, 1938, Beiblatt*, cols. 62–68; A. Rumpf, *La Critica d'Arte* xiv, 1938, pp. 44–45.

<sup>22</sup> The top of the illustration shows the right part of *IG. i<sup>2</sup>, 978* (photograph of the back of a squeeze) and the lower part shows the inscription on the two new fragments of the Potter Relief (photograph of the back of a squeeze).



compared the folds of the potter's himation with those of the seated figures of the Siphnian treasury,<sup>23</sup> and this frieze has been attributed to Endoios by Rumpf.<sup>24</sup> Schuchhardt went so far as to suggest that the sculptor of the Potter Relief also made the reliefs on the so-called ball-player base;<sup>25</sup> and this base was found together with the base carrying the signature of Endoios (*IG. i<sup>2</sup>, 983*). The badly preserved painting on this statue base, representing a seated man, is the only original work of Endoios which is known so far.<sup>26</sup> There exists a certain similarity between this painting, the Potter Relief, and the Athena statue from the Akropolis commonly identified as the work of Endoios which is mentioned by Pausanias in his description of the Akropolis.<sup>27</sup> Both the potter and the Athena are rather heavily built, and their bodies are well modelled. The great liveliness of the Athena statue is achieved by the artist through the unsymmetrical position of the legs which indicates a departure from the static character of most of the archaic seated figures.<sup>28</sup> Similarly, the potter is not represented in exact profile, but his body is slightly turned toward the spectator, his right shoulder is visible, and his breast is rendered in a foreshortened way; his left leg seems to be slightly drawn back.<sup>29</sup> The legs of the chair on which the potter is seated are similar to those of the throne of the Athena statue.

The preceding observations suggest a date for the Potter Relief at the end of the sixth century. Most closely related to the style both of the relief and of the inscription are Ionic works and, in particular, monuments connected with the Ionic-Attic sculptor Endoios.

### III. THE SIGNATURE

Two fragments of the artist's signature are preserved on the Potter Relief. Lolling had already observed that an inscription was engraved also on the right margin of the relief, and he copied carefully the scant traces of the letters.<sup>30</sup> Dickins went further and suggested that these letters are part of the signature of the artist;<sup>31</sup> neither Payne nor Schuchhardt noted the existence of this second inscription. The preserved letters are engraved from right to left on the right margin of the relief, and the inscription begins near the bottom and ends near the middle of the margin.<sup>32</sup>

<sup>23</sup> *Op. cit.*, p. 48, note 2.

<sup>24</sup> *Loc. cit.*, pp. 42-45.

<sup>25</sup> *Op. cit.*, pp. 301-302.

<sup>26</sup> Rumpf (*loc. cit.*, p. 41) and Langlotz (in H. Schrader, *op. cit.*, p. 111) date this painting near the middle of the sixth century. But the stylistic evaluation of the painting, as given by Rumpf, seems to be based solely on a restored drawing, since the stone itself never did show many traces (see the photograph illustrated in *JHS.* xlv, 1925, p. 167, fig. 2), and the painting is now practically gone! The type of pedestal to which the painted base belongs seems to be Ionic in origin; see *Bull. de l'Inst. Arch. Bulgare* xii, 1939, pp. 148-149, and compare J. Mosel, *Studien zu den beiden archaischen Reliefbasen*, pp. 4, 25, and 48.

<sup>27</sup> See E. Langlotz in H. Schrader, *op. cit.*, pp. 109-111, no. 60, and pl. 85. It seems that Endoios was known for his representations of seated figures; see Pausanias vii, 5, 9.

<sup>28</sup> See the fine description given by H. Payne, *op. cit.*, pp. 46-47.

<sup>29</sup> Quite similar is the relief in the Ince-Blundell collection which S. Casson aptly compared with the painting on the base signed by Endoios (*JHS.* xlv, 1925, p. 172, fig. 4); see B. Ashmole, *Catalogue of the Ancient Marbles at Ince Blundell Hall*, p. 96, note 2.

<sup>30</sup> *Op. cit.*, no. 281 b.

<sup>31</sup> *Op. cit.*, p. 272. S. Casson could not have been aware of this observation when he suggested (*Technique of Early Greek Sculpture*, p. 144) that the dedicator of the relief "may conceivably have carved the relief himself."

<sup>32</sup> This is supporting evidence for the assumption that the dedicatory inscription began at the lower end of the left margin.

Both the beginning and the end of the signature are preserved; the end is illustrated in fig. 7. The total length of the inscription and the distance between the four preserved letters permit an estimate of the number of letters that originally comprised the inscription. There were approximately fifteen, and this number tallies well with the assumption that the inscription contained only the name of the artist and the verb ἐποίησεν (fig. 8). It is to be noted that the inscription was damaged in ancient times by the addition of strokes which make the reading very difficult.<sup>33</sup> These additional strokes are evidently not parts of normal letters.<sup>34</sup> If they are disregarded, the signature may be read as beginning with epsilon, followed by one of the three letters: gamma, mu, or nu. The whole inscription ended in epsilon-nu, which may easily be restored to [- - - ἐποίησ]εν. There remain approximately seven letters for the name of the artist.<sup>35</sup> Among the few names beginning with epsilon-nu,<sup>36</sup> the name of Endoios suggests itself, and the whole signature may be completed to \*Εν[δοιος ἐποίησ]εν.

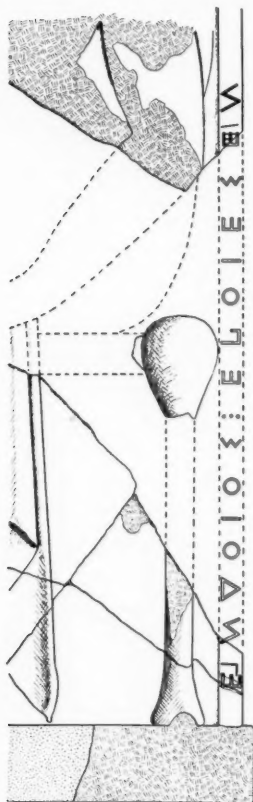


FIG. 8.—SIGNATURE ON THE POTTER RELIEF

#### IV. ENDOIOS

A. Rumpf, in his monograph on Endoios, has attributed to this artist, among other monuments, not only the Rampin horseman<sup>37</sup> and the peplos kore,<sup>38</sup> but also the frieze of the treasury of Siphnos at Delphi.<sup>39</sup> These attributions are based, so it seems, on each other, rather than

<sup>33</sup> Lolling must have noticed that some of the preserved strokes do not belong to the original inscription, because he gives the distance between the letters as 43 millimetres, which does not take into account the added strokes. Surprisingly similar is the damage done to the artist's signature on the Siphnian frieze, and Rumpf restored (*loc. cit.*, pp. 44–45) in this inscription the name of Endoios; for another signature of Endoios which was destroyed intentionally in antiquity, see *JOAI*. xxxi, 1938, Beiblatt, cols. 66–68, and compare W. B. Dinsmoor, *op. cit.*, pp. 187 and 198.

<sup>34</sup> An Ionic gamma is inserted between the first and second letters, and this gamma is engraved from left to right, while the original inscription is written from right to left. Between the last two letters of the signature (fig. 7, p. 248) three vertical strokes are inserted; two are engraved right over the horizontal bars of the epsilon, while the third, standing between the letters epsilon and nu, may easily be taken for an iota. It is clear, however, that the signature, or any other conceivable word here used, cannot end with the letters epsilon-iota-nu, and that the combination epsilon-iota would have been written in that period simply as epsilon.

<sup>35</sup> This name began with epsilon or eta, but eta may be ruled out, since most names beginning with eta have a rough breathing, and a rough breathing would probably have been written in that period.

<sup>36</sup> The second letter was most likely a nu.

<sup>37</sup> See W.-H. Schuchhardt in H. Schrader, *op. cit.*, pp. 212–225, no. 312.

<sup>38</sup> See E. Langlotz in H. Schrader, *op. cit.*, pp. 45–48, no. 4.

<sup>39</sup> Rumpf did not discuss in this connection kore no. 602 which has been attributed to Endoios or to his studio; see *JOAI*. xxxi, 1938, Beiblatt, col. 65, note 11; E. Langlotz in H. Schrader, *op. cit.*, pp. 50, no. 7, and 111. This combination would support Rumpf's attribution of the Siphnian frieze to Endoios, while it may weaken the alleged connection of Endoios with the peplos kore and with the Rampin horseman; compare C. Picard, *op. cit.* ii, pp. 899–900.

on external evidence. The attribution of the Siphnian frieze is of special significance, because Rumpf compares one of the figures of the frieze with the seated Athena from the Akropolis, and because there is preserved the signature of that artist who made the part of the frieze which Rumpf attributed to Endoios. Though the name of the artist is almost entirely lost, Rumpf does not hesitate to restore the name of Endoios.<sup>40</sup>

The literary tradition knows Endoios as a sculptor of marble statues, as well as of statues of wood and of ivory. The statue base from the Kerameikos proves that he was a painter, and the Potter Relief shows that his skill was great also in the carving of reliefs.

ANTONY E. RAUBITSCHK

INSTITUTE FOR ADVANCED STUDY

<sup>40</sup> It is worth mentioning that the formula of the signature on the Siphnian frieze (ὁ δὲ ἰνα τάδε καὶ τῶπισθεν ἐποίησεν) is similar to that of Endoios' signature on *IG*, ii, 983 (Ἐνδοῖος καὶ τόνδ' ἐποίησεν). It is quite possible that a similar signature was inscribed on the base of the statues of the Charites and Horai in Erythrai. Pausanias says (vii, 5, 9) that Endoios' authorship of the cult image may be deduced from the marble statues of the Charites and Horai which stood outside the temple; the signature may have been: Ἐνδοῖος τάσδε καὶ τόνδον ἐποίησεν.

## TWO UNKNOWN MINOAN STATUETTES

### PLATES XV-XVI

TWO MINOAN figurines were found, each in its box, in a desk at the Walters Art Gallery after the death of the owner, late in 1931. The superintendent of the building remembered that Mr. Walters had bought them personally many years before. The date he could not suggest. It seems fairly certain, therefore, that they were in America before the appearance of a large group of Minoan antiquities in the late 1920's.



FIG. 1.—MINOAN CHRYSELEPHANTINE STATUETTE AS PURCHASED

(Courtesy of the Walters Art Gallery, Baltimore)

Whether they were here before the chryselephantine goddess came to the Boston Museum of Fine Arts in 1914, it will always be impossible to say. With the statuettes was a certificate, signed by a dealer in Paris, warranting them genuine and from the palace of Knossos—and the certificate was undated!

Now that at least one of these statuettes is to be exhibited for the first time, this preliminary publication is offered to provide a basis for discussion of their proper categories. Some scholars have already examined them and made helpful suggestions. That I do not thank them specifically is due to fear of misrepresenting them. It is to be hoped that all will feel free to express in print their divergent views.

The larger of these two ivory statuettes represents a female figure. It is decorated with gold plates.<sup>1</sup> The ivory was in very bad condition and its repair has just been accomplished. When it came, the broken and splintered ivory was filled with paraffin and the gold plates, with the exception of the belt and two flounces on the skirt, were detached and held loosely by strings (figs. 1, 2). The arms were detached. The right half of the torso, above the waist, was broken off and there was another loose fragment, the head and neck, with a triangular end, fitting between the two fragments of the torso. The paraffin has since been removed and the ivory solidified with gelatine, hardened with formaldehyde fumes. Half of the torso has been affixed with gelatine, the fragment of the head and neck fitted into the body and secured by a needle as dowel (plate XV), and the arms attached with similar dowels. The gold plates have been affixed to the ivory with gelatine, while those already fastened by nails were left in position (plate XVI). Our replacement of the gold plates is, of course, problematical in some cases. So is the position of the gold snake, two parts of which are provisionally strung on a wire which is fastened to the left arm. There remain a few fragments of ivory, one

<sup>1</sup> Number 71.1090. Height,  $8\frac{7}{8}$  inches (.225 m.).

gold nail, a piece of the narrowest gold band,  $\frac{1}{2}$  inch long; and also a snake's head which is certainly intrusive. This reassembling, however, seems obligatory in all essentials.

The body originally was constructed of five pieces of ivory. A single solid piece extended from the top of the head to below the middle of the skirt. This piece is two centimeters longer in front than in back. The skirt was completed by two pieces, a short one in the front and a longer one in the back. These are from the broad, hollow end of a large tusk and form a hollow bottom for the statuette. The back and front pieces were fastened to each other by two ivory pegs, one passing through the front into the back, the other through the back into the front. The whole lower part was attached to the upper part by two similar pegs, passed from the back of the additional piece into the front of the main part of the body. The ends of three pegs, therefore, are apparent in the back of the statuette and one in the front. The arms were separate pieces, mortised into the shoulders. The mortise holes in the body are round at their greatest depth, but widened into squares at the outside (plate XV). The square tenons on the arms have worn away completely.

The surface of the ivory is almost entirely destroyed, so that it is difficult to form any conception of the modelling. One can recognize the small waist, well developed breasts and very long legs which are typical of Minoan art. The back is arched and its curve is accentuated by the pointed cap. No detail of the features remains. On the left side of the head a slight projection may indicate the ear and the edge of a mass of hair which is not, however, recognizable on the back. The arms are outstretched, slightly bent at the elbows, and the one which we take to be the right, still gives a suggestion of grace. The hand was extended with the palm up and there is no indication that it held anything. The other arm is preserved from below the elbow to near the shoulder.

Some details on the ivory correspond to those details picked out in the gold plates, but it is impossible to say how far these details were originally carved and how far they are due to weathering, the relief being the part protected by gold, the lowered surface the part exposed. The fact that almost all the gold plates are much too large for the statuette in its present condition shows us how much of the ivory has disappeared and should warn us against being certain how the ivory was treated. The correspondence of gold to the raised surface is unquestionable on the front of the body, under the bodice and the apron, and a few points on the lower flounces of the skirt; here the pattern on the ivory seems to be due to weathering. On the right side of the band, at the base of the hat, there appears (plate XV) a carved wave pattern, like the wave pattern on the gold band, and the band is not cut out, but solid; this part, therefore, must have been completely carved before the gold was added. Other markings on the ivory which may represent original carving are the horizontal lines across the hips and back. The ivory may conceivably have been colored, for there is a trace of red color on the upper back.

The gold was attached to the ivory by gold nails, which have rounded heads and shafts rectangular in cross section. There are more holes for nails in the gold than in the ivory. Either the ivory has been worn off to below the nail depth at these points, or not so many nails were used as the goldsmith had planned. There is one nail-hole



in the back of the skirt and one nail in the pointed hat which served for the attachment of pieces now missing. There are no nails in the breasts.

The only piece of gold which certainly has never been separated from the ivory is the belt. Its ends were lapped over and fastened by a single nail. Splitting and spreading of the ivory have caused one end of the belt to tear away from the nail. The whole belt, nevertheless, hugs the body. The belt reminds one of an Ionic base, with a concave moulding in the center and convex mouldings, one below and two above.

Two pieces of gold were found nailed to the skirt as decoration of the flounces. These consist of strips of sheet gold, from which rectangles have been cut. The effect of each is that of two horizontal bands, connected by many vertical bands. The strips are bent into vertical ridges, except the lower part of the lower flounce, which has small vertical incisions instead of deep ridges. The two strips are placed straight across the front, while one of them takes a slight and probably accidental dip at the center back. It is just possible that they have been re-attached and that they could and should be arranged with points at the middle of the front and the middle of the back. There are also two bands of gold, one narrow and the other still narrower, decorated with incised cross lines. A small piece of the narrower band was found nailed at the center front above the upper of the wide flounces, and the whole band has therefore been placed at this level (a small piece of this band is left over). The other has been provisionally placed at the very bottom of the statuette.

There is an apron of gold plate, which fits the front of the figure, matching an irregular area in the ivory. It has holes for nails at the center top and bottom, at the outer ends and at the sides. Only the center holes correspond to those in the ivory, and the lower of these contains the nail which holds the narrow band on the skirt and does not hold the apron. Either the apron was torn off, or the nail was replaced. The apron designs were beaten in. The border consists of equilateral triangles, placed with the apex of one against the base of the next. Each triangle has a cross line parallel with the base. Inside the border are two snakes, each a double line. They poise on their tails, twist upward, and droop their heads at the center. Pieces between the snakes and the border were cut away. There is no sign that a second apron was worn over the back.

The upper part of the costume consists of an openwork bodice with sleeves. The largest piece passes below the breasts, rising to a point between them, over the shoulders and behind the arms, leaving the back bare. Straps rise, two from the back and two from the front of the bodice, to be fastened on top of each sloping shoulder, then more complete than now, with the broad, decorated front lapped over the pointed back and fastened by a nail. This piece was fastened by nails in the point at the front, just above the waist at center front, on top of the shoulders and at the back. The lower part of the bodice has rectangular perforations which divide it into edge and cross bands, like the flounces of the skirt. All the bands are decorated with rosettes, made by beating a circle into relief by hammering from the back and impressing it with two cross lines from the front. Single rows of these rosettes decorate all the bands except the vertical ones to right and left of the center front, and these have double rows. The shoulder straps have a row of rosettes close to their inner

edges and none farther out, presumably because they were covered by sleeves. Where the shoulder straps join, each front strap has two rosettes, each back none, because the front was lapped over the back.

The costume demands sleeves and a band decorated with cut-outs and rosettes, exactly like the bodice, supplies one of them. This band is straight, with two nail holes at each end. One end was decorated with rosettes, because it was to be seen, while the other was plain because it was covered. If the decorated end is lapped over the other, it forms a sleeve of appropriate length and diameter, and we have so placed it on the left arm, the upper half inch of which had been noticed to be larger than the rest. Probably it was protected by the gold sleeve, while the other arm, which shows no such enlargement, had lost its sleeve early in history.

As a back to the bodice we have used a triangular plaque broken into two parts, which had been set over a nail as decoration for the crown, but which seemed not to belong there. It fills the space perfectly and the only objection which might be raised to its use as the back of the dress is the straight line at the top. It is perforated with four rows of openings, so arranged as to form two feathers with their tips downward.

The remaining gold is a band with a wave pattern, impressed and not cut out, which we have placed on the projecting rim at the bottom of the hat, completing a fragment which was nailed there already, and covering a section of ivory which seems to have been carved to match it (see above); and two pieces which we have reconstructed as a snake. These are single sheets of gold, beaten with circles to produce a faint imbrication pattern and bent into cylinders. The end of one piece is spread out and may have been the head of the snake. Another fragment, a snake's head made of two plates with embossed rosettes serving as eyes, seems definitely to be a forgery and probably of base metal (fig. 2, right of center).

It is hopeless and thankless to ask what garments and of what materials the gold plates of this statuette represent. If it really was customary to sew gold rosettes to one's garments, the bands decorated with rosettes may be the artist's way of representing these rows of independent rosettes of larger scale.<sup>2</sup> But this is problematical. We have no examples of figurines wearing cut-out plates from controlled excavations. Yet a few objects of quite different material seem to represent the same original, as became apparent after the repair of our figure had been completed.<sup>3</sup> One is an impression of a seal from the excavations at Knossos. Here, before a seated minotaur and above a ram, stands a tall person with long neck, wearing what Evans calls a "sleeved cuirass." This cuirass has a longer sleeve on the left arm than on the right, and this longer sleeve bears a pattern like the cut-out rectangles of our gold sleeve. On the front, too, is a succession of geometric patterns, which certainly look as if they should be cut out. The resemblance to our bodice is even greater if we dare to interpret the two upper triangles as breasts, below which the patterns begin. Another object which suggests our costume is a clay figure from Knossos, of later date, and so schematized that we must not take it literally.<sup>4</sup> It has a bell-shaped

<sup>2</sup> A. J. B. Wace, *A Cretan Statuette in the Fitzwilliam Museum*, pp. 36 ff.

<sup>3</sup> Evans, *PM.* ii, pt. II, p. 763, fig. 491.

<sup>4</sup> Evans, *BSA.* viii, p. 99, fig. 56; Bossert, *The Art of Ancient Crete*, fig. 295. Pendlebury, *Archaeology of Crete*, p. 255, calls it a decorated jacket.

skirt, raised hands and a long neck. The painted design on the front suggests an elaborately decorated bodice. Although it surrounds the breasts and is held by a halter around the neck, instead of by shoulder straps, we cannot miss the similarity of its rows of dots and rows of cross-bands to the rosettes and cut-out strips of our figurine. Were stiff, cut-out garments worn in real life?<sup>5</sup>



FIG. 2.—LOOSE FRAGMENTS OF CHRYSELEPHANTINE STATUETTE  
(Courtesy of Walters Art Gallery, Baltimore)

The other figure is of solid ivory (figs. 3-4).<sup>6</sup> The only damages are a few chips on the front and the fingers. The woman stands with her left arm hanging down, her right bent at the elbow, the elbow pushed back and the hand upraised, palm forward. Her skirt reaches the ground and is close-fitting over the hips, while below the hips are five ruffles, each rising to a point in front, the plaits nearly vertical, but slanting backward slightly at the bottom. The belt around the small waist consists of five projecting rings like wires. The upper part of the dress fits closely and seems to cover the breasts. There is a raised ridge across the front, which probably is the top of the dress, though it may be a necklace, and ridges about the upper arms, probably

<sup>5</sup> This figure has upraised hands which do not hold snakes. Perhaps the snakes should be placed elsewhere on our figure.

<sup>6</sup> Number 71.1091. Height,  $4\frac{1}{8}$  inches (.104 m.).

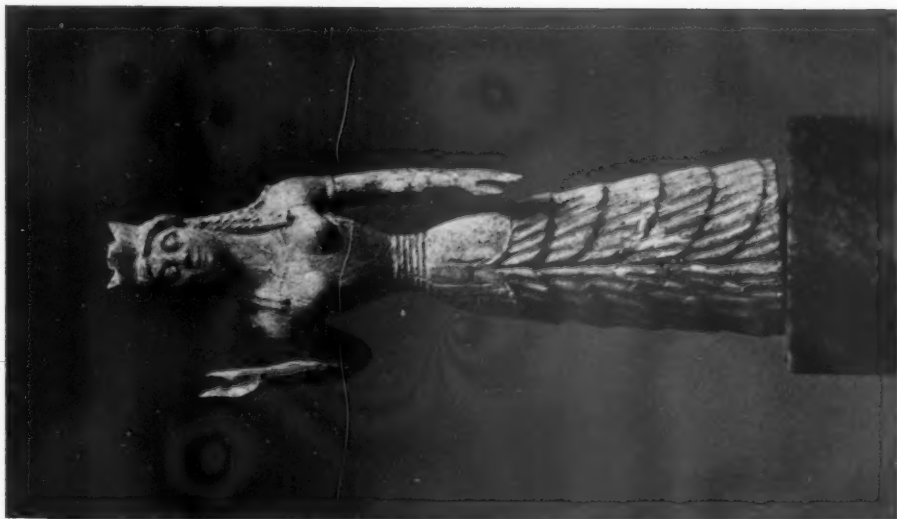


FIG. 3. — MINOAN IVORY STATUETTE  
(Courtesy of the Walters Art Gallery)

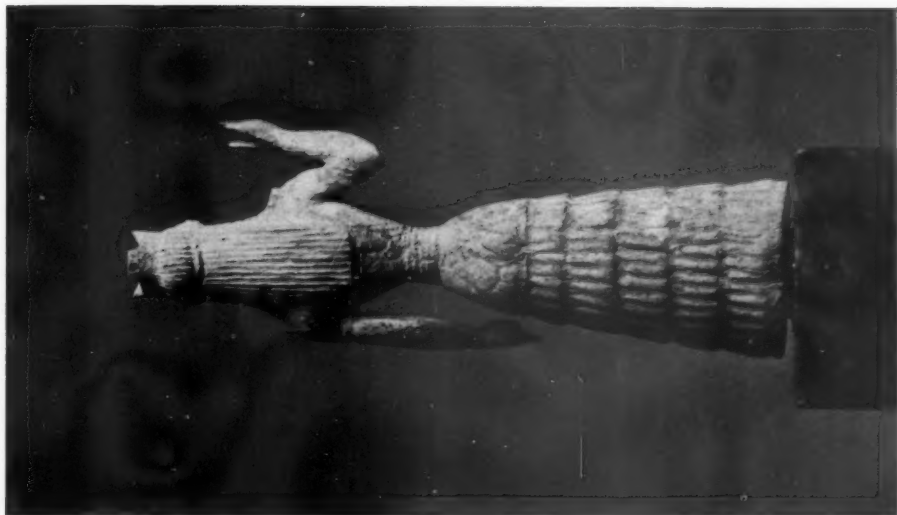


FIG. 4. — MINOAN IVORY STATUETTE  
(Courtesy of the Walters Art Gallery)

the ends of the short sleeves, but conceivably armlets. The head is bound with a band, and the forehead locks are held in loops at the sides by the band. Two curly locks fall before each shoulder and one sidewise on each shoulder, while the rest of the hair falls in a straight, grooved mass at the back. On the head is a low crown with four crenellations.

Minoan statuettes appearing mysteriously, even many years ago, invite suspicion of forgery and I doubt whether it is possible to establish their authenticity because of the dearth of documentation. My own conviction is that the chryselephantine statuette is genuine as a whole, and that our reassembling is substantially correct. The condition of the ivory seems indicative of great age. I would not, however, exclude the possibility that some of the gold was added, and suggest the wide flounces of the skirt, the narrow flounces, the apron and the discarded snake's head as open to suspicion, mounting in the order named.

I do not think that the small ivory is genuine, because the costume is misunderstood, the head-dress typically Greek, the crown unprecedented in ancient times and the general impression, too, like a chess queen. The fact that it was purchased with the other does not, I think, argue against the authenticity of the first piece. In fact, it is not only possible, but quite probable that someone, finding himself the possessor of a genuine but frightfully mutilated statuette, made a companion piece for the trade.

But if I am correct in believing that one figure is genuine, there are grounds for great rejoicing. One more of the very rare goddesses, in the still rarer technique of gold and ivory, is a welcome addition to our knowledge and a stimulus to our imagination to people once more the halls of the Cretan palaces.

DOROTHY KENT HILL

THE WALTERS ART GALLERY



1942  
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### NECROLOGY

**Sir George Abraham Grierson.**—J. L. M(YRES) contributes to *Man* xli, 1941, pp. 62–63, a tribute to this great scholar of Indic philology and antiquities, who died on March 7, 1941, at the age of ninety. He is best known for the famous and invaluable *Linguistic Survey of India*. A graduate of Trinity College, Dublin, he received many honors from his own and other countries, and was knighted in 1912.

**T. A. Joyce.**—*The Burlington Magazine* for February 1942, pages 49–50, reports the death of T. A. Joyce, on January 3, 1942, at the age of sixty-three. Mr. Joyce was for a long time on the staff of the British Museum (1902–1938) and was a recognized authority in the field of American Archaeology, having conducted four expeditions in Central America for the study of Maya civilization. His books in the field of American Archaeology are of the greatest use to students, and are charmingly written and very informative. His death is a real loss to the science of American Archaeology.

### GENERAL AND MISCELLANEOUS

**Origin of the Swastika.**—In *Man* xli, 1941, pp. 49–55 (plate and 11 figs.) JOHN, Prince LOEWENSTEIN discusses the history, origin, and meaning of the swastika. The oldest examples of this form of decoration he finds in statuettes and bracelets of mammoth ivory which belong to the Ice Age culture and which come from Mezine, in South Russia. Even then it seems to have had some reference to a fertility cult, and to be a symbol of fecundity, an idea which persists throughout antiquity, as is shown by the spindle-whorls and female face-urns from Troy, where it appears. From this cult it passed by an easy transition to the cult of the dead. In Samarra and Susa it appears only on funerary pottery, and also on early Greek vases and terracottas

which show funeral subjects, or which were found in tombs. The center of the use of the swastika seems to have been Mesopotamia, but it extends from the Near East into Central Europe, and in Asia in the Trans-Caspian area, the Indus valley, and even into China and Japan. It travelled by means of trade or migration. The cult of fertility being allied with that of the moon, the swastika must have had a lunar, as well as a fecundity significance, and with it the mystic number three frequently occurs, the swastikas ending in hands with three fingers or being composed in three lines. It first appears from the Near East in the Danubian culture of Europe about the middle of the third millennium B.C., and does not come into Northern Europe until after the Bronze Age. Its presence in American Indian art is probably an importation from Asia. So far from being Aryan or Indogermanic, its origin is to be traced to the area between the Eastern Mediterranean and the Persian Gulf.

**Stonehenge: Today and Yesterday.**—*The Smithsonian Report* 1940, pp. 447–478, (8 figs. 1 pl.) reprints a paper by FRANK STEVENS (*H.M. Stationery Office*, London, 1938) on this very important subject.

The atmosphere of mystery which, for many past generations, has surrounded this monument of English prehistory, gave rise to a vast literature of unrestrained speculation. For any probable conclusions concerning the nature and origin of Stonehenge we must depend, for the present, upon the scientific explorations of more recent years.

Stonehenge consists of a circular earthwork, 300 feet in diameter, encircling a ditch which provided the material for the earthwork; an "avenue" between earthen banks approaching the earthwork; and, proceeding towards the center, in order: a circle, 98 feet in diameter, of hewn "sarsens" (local sandstone), forming con-

joined trilithons, with the lintels mortised to the uprights; within this, another circle of hewn stone uprights, without lintels, encircling a horseshoe, outlined by five great detached trilithons, with an opening to the northeast—the lintels again mortised to the uprights; an inner horseshoe of simple uprights. Within the avenue, northeast of the circular earthwork, stands an unworked sarsen stone, the Hele Stone, or Friar's Heel. Within the earthwork, northeast of the circle of trilithons, is a recumbent slab of hewn sarsen, the so-called Slaughter Stone. Within the ditch a circle of holes, which must originally have held uprights, was excavated in 1920; these are the Aubrey Holes, so-called after the antiquary who indicated them on a plan of 1666. Two small unworked sarsens are on the line of these holes, to the northwest and the southeast. Also on this line, southward from the southeast stone and northward from the northwest, lie two earthworks, so-called "barrows," which once probably supported uprights. A line drawn between the southeast and northwest stones and one joining the centers of the two earthworks cut each other at the center of the circle. This suggests a planned orientation of the original structure, involving these stones and the circle. According to Sir Norman Lockyer's observations, sighting over these outlying stones from the center of the circle shows sunset and sunrise on May 6th and November 8th, February 2nd and August 6th. Numerous observations also have been recorded of the rising of the sun over the Friar's Heel on Midsummer Day. These facts appear to link the construction of Stonehenge with a careful observation of solar phenomena for some unknown purpose.

The name Friar's Heel is derived from an ancient legend of unknown origin, which connects this stone with the Devil, and hence, perhaps, with pagan "stone-worship," which, as being "of the Devil," was banned by the Council of Tours and by Canute.

The center of the circle marked by the Aubrey Holes does not coincide exactly with that of the circle of trilithons. This fact suggests that there were two periods of building at Stonehenge.

The sarsens of the trilithons are of local origin in Wiltshire, while the stones of the other circles and the material for the tools used in shaping the blocks are of igneous rock, brought from Prescally in South Wales. The so-called Altar Stone is also of foreign origin, probably from Milford Haven. The foreign material, it is suggested, was brought

in by a migration of Megalithic Builders from South Wales. At the time of this migration to Salisbury Plain, or perhaps rather later, an infiltration of Beaker Folk reached the Plain from the east or south coast of Britain, perhaps from both coasts. Together they built Stonehenge, and it is to the fresh influence of the Beaker Folk, working on Megalithic tradition, that are due the special structural features of Stonehenge, differing from those of Megalithic circles generally.

A considerable number of objects, in addition to the heavy stone tools, was recovered from the site by careful excavations carried on between 1920 and 1928. The range of dates covers every period from beakers of ca. 1800 B.C. to a groat of Henry II. The excavation, not far from Stonehenge, of the Easton Down Settlement, yielded prehistoric material very similar to that from Stonehenge. It appears from this, and from other indications, that if Stonehenge is not a late Neolithic structure, it must certainly belong to the early Bronze Age.

**Celtic Gold Bowl.**—In *Bull. Detroit Inst. Arts* xix, pp. 2-3 (fig.) GEORGE LECHLER publishes a remarkable prehistoric gold bowl in Detroit, already quite well known, as it was found about 1879 near Gmünd in Württemberg. It is the only one of its kind in America, and belongs in the Southwestern Group of the Middle Bronze Age, or about 1100-1000 B.C. It is undoubtedly of Celtic workmanship, in the geometric style, and was used for libations in religious rites.

**Heads in Sculpture.**—Early in 1940 the Metropolitan Museum arranged an exhibition, from its own collections, of sculptured heads from the earliest times to the present day. This is commented upon by JOHN GOLDSMITH PHILLIPS in *EMMA* xxxv, 1940, pp. 2-5 (6 figs.). Of interest to readers of this JOURNAL are a quartzite head of Ramses II, a portrait head of Epicurus of the third century B.C., a marble head of an unknown Roman lady of the second century A.D., and a Cambodian head of a Bodhisattva, dating in the twelfth century A.D.

**Trident-Gods in Sahara and Western Sudan.**—In *Man* xli, 1941, pp. 60-62, Sir H. RICHMOND PALMER discusses the question of whether the Greek god Poseidon reached the Sahara and Western Sudan through Egypt. Other scholars have indicated that he reached Zanzibar and other parts of eastern Africa. He finds evidence to suggest that the camel-owning Maghumi, who founded

the Bornu Empire ca. 700 A.D., were in close contact with the Nilotic Sudan. The higher office-holders of this tribe carried, as a badge of office, a spear surmounted by a trident, which is explained as the attribute of their god of water. One of the royal names of the tribe was *Bigri*, possibly a derivative of *Behr*, the Axumite name of Poseidon. An Axumite inscription of 522 A.D. shows that before that date Zeus and Ares were also worshipped at Adulis, under the names of *Medr* and *Mahre(m)* respectively. The former of these names may also be seen in the Bornu name *Midilayi*.

### EGYPT

**Tribute to H. E. Winlock.**—On the occasion of his retirement from the Directorship of the Metropolitan Museum, *BMMA*. xxxiv, 1939, pp. 133–136, printed a beautiful tribute to his services by ROYAL CORTISSOZ, under the title, "Herbert Eustis Winlock—An Imaginative Archaeologist," in which the writer stresses the contributions to Egyptian archaeology which Mr. Winlock has made, the vividness and vitality of his literary style, and the sympathetic appreciation of other civilizations which he showed as Director of the Museum.

**Egyptian Installations in New York, 1939.**—In 1939 the Metropolitan Museum added several rooms to its Egyptian galleries. These are described by H. E. WINLOCK, in *BMMA*. xxxiv, 1939, pp. 118–122 (4 figs.). Among the objects selected for illustration are a carved panel from the Pyramid of Se'n-Wosret I (Middle Kingdom, 2000–1800 B.C.); the coffin and mummy of Khnum-Hotpe, belonging in the same period; an ivory gazelle, of miniature size and delightful execution, from the Carnavon collection; and a set of goblets, cups, and bowls from a table service of the period of Thut-mosē III.

**Old Kingdom Head.**—AMBROSE LANSING, in *BMMA*. xxxvi, 1941, pp. 250–252 (fig.) publishes a portrait head of the first half of the Fifth Dynasty, recently acquired by the Metropolitan Museum. It is of fine white limestone, just under life size, and was the portrait of an individual for his tomb, made during his lifetime. The bulk of the article deals with the customs of the cult of the dead in ancient Egypt at that era.

**Middle Kingdom Jewelry.**—ELIZABETH S. EATON publishes the contents of a tomb excavated by the Harvard-Boston expedition, now in the Museum of Fine Arts. The tomb is that of a woman, and belongs in the Middle Kingdom.

All of the ornaments were found on the woman's body, as she would have worn them in life. They consist of three necklaces, of carnelian, amethyst, and faience respectively; a beautiful pendant of silver, in the form of a uraeus; a pair of armlets of carnelian, amethyst, serpentine, and rose quartz, worn just above the elbow, the right being differentiated from the left by silver amulets; a pair of bracelets and a girdle of faience beads; two scarabs, one amethyst and one carnelian, and a pair of anklets, with bronze and silver claws like those of a hawk. With these ornaments was found a mirror of copper, with an ivory handle ending in a lotus capital. This was the tomb of a woman of minor position and limited means, and derives its importance as indicating the average taste of the period (*BMFA*. xxxix, 1941, pp. 94–98; 8 figs.).

**Theban Necropolis.**—N. DE G. DAVIES, in *BMMA*. xxxiv, 1939, pp. 280–284 (7 figs.), reports on researches conducted in this area in 1938–39. The tomb of Dow-er-enḥeh was subjected to a thorough examination, and this article is entirely devoted to it. The owner was a loyal official of Queen Ḥat-shepsūt, was active in the early years of her reign, and had much to do with the building of her temple. In decorating his own tomb, therefore, he introduced a scene reminiscent of Deir-el-Bahari. On one end was a queen enthroned (no longer in existence), identified by an inscription as A'h-mose, mother of Ḥat-shepsūt. To her objects are presented by Dow-er-enḥeh, who is likewise identified by an inscription, which speaks of the tomb as a chapel where Ḥat-shepsūt and her mother were worshipped. This Dow-er-enḥeh was an important official, with many titles, all of which are given on an autobiographical stele in the tomb, which also gives a list of his achievements. The facts on the stele are illustrated by designs on the tomb walls, showing his workmen executing the woodwork (doors, columns and pilasters) for the temple of Ḥat-shepsūt. Some of these designs are illustrated in the article. Other interesting details of decoration are a fine scene of a hippopotamus at bay, and a charming fragment of a pet dog, named by his master "Ebony" for his black coat—an ancestor of the black dogs so common in Egypt today.

**Faience Broad Collar.**—In *BMMA*. xxxv, 1940, pp. 65–68 (2 figs.) AMBROSE LANSING describes the practice of the Egyptians of producing, from steatite coated with vitreous glaze,



beads closely resembling lapis lazuli, turquoise, or green feldspar. This practice goes back to the beginning of the fourth millennium B.C., and persists through Egyptian history. From steatite it was an easy step to apply the glaze to a paste of ground quartz, which enabled the craftsman to mold tiles, vases, and figures, as well as beads. This is the true faience, and begins very early in Egyptian civilization. With its development the range of colors employed was extended, but it was not till the Eighteenth Dynasty that the full palette was reached, and successfully applied. The Metropolitan Museum acquired in 1940 a superb example of a broad collar of faience beads of this period, in which yellow, green, red and blue are found. The broad collar was a favorite form of adornment for both sexes, and the earliest specimens date back into the Old Kingdom. The origin of this form seems to have come from collars made of real flowers and leaves, of which the Metropolitan has three examples. In the Eighteenth Dynasty the broad faience collar was very much in fashion, and numerous specimens, together with some of the molds from which the beads were made, have been found. In the collar here published, which consists of five rows of beads, the three middle rows are in the form of dates; the innermost represents cornflowers, the outermost buds of water lilies. The end pieces have motives of lotus, persea fruit, and poppy petals, and end in pendants to represent tassels. In its relation with real Egyptian jewelry, it compares almost exactly with the costume jewelry of today.

**Eighteenth Dynasty Minor Art.**—In publishing a charming alabaster perfume jar, and a pair of ivory cosmetic boxes in the form of ducks dressed for the table, recently acquired by the Metropolitan Museum, WILLIAM C. HAYES, in *BMMA*. xxxv, 1940, pp. 81-82 (fig.) claims that "the Egyptian artist reached his peak when turning out small and preferably frivolous objects." These specimens belong in the latter years of the Eighteenth Dynasty.

**Two Egyptian Bronzes.**—In *BMMA*. xxxvi, 1941, pp. 208-209 (2 figs.) CHARLOTTE R. CLARK publishes two bronze statuettes of Late Dynastic style, recently acquired by the Metropolitan Museum. One is of Horus, with the falcon head, holding a tall water-jar at chest level. He is undoubtedly in the act of pouring water over a king, who is supposed to be kneeling or standing in front of him. The other is of the goddess Ta-weret, "the great one," protectress of childbirth. She

is represented as a hippopotamus standing erect, with the body of a woman, and the back and tail of a crocodile, crowned with a solar disk between cow's horns—the headdress usually given to Isis and Hat-Hor. The date for both statuettes is after 600 B.C.

**"Cleopatra's Needle" in Central Park.**—In 1940 the New-York Historical Society was requested to place a tablet on this obelisk to commemorate its gift by Egypt to the United States. The story of the negotiations to secure it, its safe transportation to this country, and its final erection in Central Park, is charmingly retold by GEORGE A. ZABRISKIE, President of the New-York Historical Society, in *N.-Y. Hist. Soc. Qu. Bull.* xxiv, 1940, pp. 103-112 (3 figs.).

**Graeco-Egyptian Shears.**—AMBROSE LANSING publishes, in *BMMA*. xxxiv, 1939, pp. 244-246 (2 figs.) a pair of shears in the Metropolitan Museum, of a type apparently invented by the Greeks, and certainly unknown in Egypt before the Ptolemaic period. They are decorated on both surfaces with exquisite designs in metal inlay of male and female figures confronted, sphinxes, cats, a dog and a lion. Unlike most Egyptian designs, their significance is obscure, and although the technique is Egyptian, the spirit (decoration for its own sake) reflects the influence of Greek art. These shears are said to have been found at Trebizond on the Black Sea, and may have been associated with the cult of Isis. A date in the third century B.C. is assigned.

**Egyptian Turbans.**—Three of these head-dresses for women, belonging in the late Roman period, in the Metropolitan Museum, are published and described by NORA E. SCOTT in *BMMA*. xxxiv, 1939, pp. 229-230 (4 figs.). These turbans show an almost exact similarity to those sold in 1939 as a fashionable summer headdress for women in New York department stores. The material is rectangular in shape, slit up the middle for half its length; the uncut end is the crown, the two tails are wound around the head. These turbans in Egypt were made of a lacy linen fabric, produced by the "double-braiding" process—a copy of one of them was made at the Museum, to illustrate how they were created. There were a number of different weaves, and each of the three here published differs from the others. Their use was practically limited to women, for of the eight examples found by the Museum's Egyptian expedition, seven belonged to women.



## MESOPOTAMIA

**Ancient Near Eastern Art.**—In *B.M.M.A.* xxxiv, 1939, pp. 196–197 (fig.) HANNAH E. McALLISTER publishes a short paper devoted to objects from this region in the Metropolitan Museum. After mentioning a collection of Syro-Phoenician ivories, a Hittite royal stele, prehistoric pottery from Iran, objects of minor art from Sumeria, and bronzes from Babylonia and Iran, she selects for especial notice and illustration a remarkable white marble bowl, in excellent preservation, of Sumerian workmanship, decorated with bulls in relief, and dating about 2700 B.C.

**Assyrian Relief.**—In *Bull. Fogg Mus.* ix, pp. 22–28 (2 figs. and cover illustration) FREDERICK R. GRACE publishes a relief of the head of a winged genius, acquired by the Fogg Museum, which was found at the palace of Ashur-nasir-pal at Nimrud in the middle of last century by Sir Henry Layard, and had been till recently in the possession of his family. These reliefs can be divided into two classes: those of large human and superhuman figures engaged in ceremonial rites, and those which record the exploits of the king in the chase, or on the field of battle. The relief in the Fogg Museum is of the first class, and similar examples in Boston and Cleveland are published for comparative purposes. By means of these, it is possible completely to reconstruct the figure to which the Fogg relief belonged. The presence on the bases of wings shows that this head is not that of a god, but of a beneficent genius. The attitude invariably represented (one arm with the forearm raised, the other arm down) is that of prayer, when the hands are empty; when there is an object shaped like a pine-cone in one hand and a small pail in the other, as in the Boston relief, it is suggested by some that there is some apotropaic or exorcising significance in the objects they carry. Various theories are mentioned by the writer as to the meaning of these objects, as he is of the opinion that the figure, of which the Fogg relief is the head, held objects in its hands. Technically, this is one of the best executed of the reliefs from Nimrud. Details were originally rendered in polychrome decoration, none of which is preserved. The date is the ninth century B.C. A list of references follows the article.

## PALESTINE

**Stone Age in Palestine.**—The New York *Herald-Tribune* for March 1, 1942, reports an announcement by MILLAR BURROWS of the dis-

covery of Stone Age caves in Palestine, which belong in a period seven to eight thousand years ago, and afford a link between the early Stone Age and the more recent historical era. While the pottery found was of the early Stone Age type, the stone and bone implements were of a much later variety.

**The Loom in Palestine and Syria.**—In *PEQ.* Oct., 1941, GRACE M. CROWFOOT discusses the vertical loom in Palestine and Syria. This type of loom has a frame consisting of two uprights and two warp beams, upper and lower. The illustrations serve to clarify the writer's description. The earliest example of vertical looms are those known from tomb pictures of the Eighteenth and Nineteenth Dynasties in Egypt. Rome received this loom either from the Hellenistic world or directly from Egypt. According to evidence from the Mishnah, the vertical loom was established in Palestine for the period extending from the second century B.C. to the second century A.D. It is identical with the type found in modern Greece and Turkey. In Tarsus it is used for weaving tent cloth from the fine hair of Cilician mountain goats. Mrs. Crowfoot also lists the Arabic names for the parts of the loom, with their English equivalents.

**Date of the Exodus.**—In *PEQ.* Oct., 1941, H. H. ROWLEY discusses the date of the Exodus. He disagrees with Lucas, who selects *I Kings* 6:1 and ignores other Biblical evidence. Rowley maintains that the oppression took place during the reign of a Pharaoh who undertook building operations in the Delta and that the building activities of Thut-mose III are all located in Upper Egypt. As regards the fall of Jericho, he quotes Albright, who says: "The views of Professor Garstang . . . are devoid of concrete archaeological foundation." He also refers to the fact that Lucas bases his view on one Biblical verse, one archaeological theory, and one site (Jericho). Rowley thinks that the evidence of the Merneptah stele may refer to a wave of immigration into Palestine not led by Joshua. He rejects the evidence of *Ex.* 12:40 and *I Kings* 6:1, but he considers his view more in line with Biblical tradition. He believes that the descent into Egypt took place in the Amarna Age, when the court was not in the Delta. He regards the Habiru of the South as kindred to the Hebrews, but lately associated with those that went down into Egypt; those of the North were a more distantly connected group. The southern group pressed as far north as

Schechem, they were scattered, but some joined the ones who had gone to Egypt. After an interval in close accord with the genealogies of the Old Testament (*Gen.* 46:11; *Ex.* 6:20; *Num.* 1:7; *Ruth* 4:20-22), the Exodus took place after an oppression under Ramses II. The group that came out of Egypt entered Canaan under Joshua, via Jericho.

This view agrees quite closely with Père Vincent's dating of the fall of Jericho ca. 1250 B.C. Rowley posits no long interval between the Exodus and the entry into Canaan. He notes that there are two traditions of the Wilderness period, one of which centres around Sinai (Horeb) and the other around Kadesh. He supposes that the Kadesh tradition is probably associated with the entry from the south with Judah, i.e., an entry of Judahite clans, Kenites, and others. The entry under Joshua may have followed the first invasion after a quite short interval. The date of the Exodus is still not definitely fixed.

**Fall of Jericho.**—In *PEQ.* Oct., 1941, JOHN GARSTANG once more takes up the date of the fall of Jericho, which he again places in the reign of Amenhotep III (ca. 1400 B.C.), before the time of his successor Ikhnaton, of whom there is no trace at Jericho. Nor is the city mentioned in the Amarna Letters. But Garstang recognizes traces of a few intrusive burials in the tombs, during the 500 years that the city itself lay in ruins. To these traces must now be added the so-called Middle Building. In looking for the alien occupant of the site, he finds the answer in *Judges* 3:10-14. Starting with 1400, Garstang maintains that the date of the oppression by Eglon falls wholly or mostly within the reign of Seti I. This can be correlated with the revision of the date of pottery from Beisan from L.B.I. to the time of Seti I. From an inscription discovered at Beisan, it is known that this monarch repressed disturbances in the Jordan Valley. Garstang concludes that the scholars who have revised the dating of L. B. pottery have also restored a fragment of Bible narrative to its rightful place in history.

## GREECE

### GENERAL AND MISCELLANEOUS

**Late Helladic Gilt Terracottas.**—CHRISTINE ALEXANDER publishes, in *EMMA.* xxxiv, 1939, pp. 216-217 (2 figs.) a necklace in the Metropolitan Museum, of gilt terracotta rosettes, thirteen in number, with a pendant in the shape of a con-

ventionalized lily. The rosettes are pierced for two parallel strings. Similar rosettes have been found at Dendra, Asine, the Argive Heraion, Mycenae (where these are said to have been found), and Menidi, and in Crete at Phaistos. They belong in the third Late Helladic period (1400-1100 B.C.). With them was acquired a statuette of a goat, also in gilt terracotta, which has no exact parallels, and appears to belong in the same period, and to come from the same vicinity, if not the same burial as the necklace, making it "an important new example of Mycenaean sculpture in the round."

**Greek Horsemanship.**—In *CJ.* xxxvii, pp. 323-333, JULIUS A. SAACKE, an ex-sergeant of Field Artillery, United States Army, contributes an excellent paper on the horsemanship of the Greeks, and especially the Athenians and Thessalians. He discusses the place of equestrian exercises in the great games, acrobatics, hunting, the breaking and training of young horses, military equitation, and the use of cavalry in ancient warfare, employing not merely references to literature, but to sculpture, and particularly to vases, to illustrate and prove the statements which he makes. He concludes that "the Greeks belong with the few truly great horsemen of the world" and that "in the art of horsemanship the ancient Greek still remains second to none."

**Greek Accessions in the Metropolitan.**—Under the title "Greek Accessions," CHRISTINE ALEXANDER, in *BMMA.* xxxvi, 1941, pp. 202-205 (4 figs.), publishes three new acquisitions: (1) a bronze head of a griffin, dating probably in the first half of the sixth century, perhaps a fitting from a piece of furniture, formerly in the Fitzhenry collection in London, where it was listed in the sale catalogue as "Roman"—but it is surely either Greek or Etruscan; (2) an Attic red-figured calyx-krater, formerly in the collection of V. Everit Macy, showing in two bands Odysseus and his companions in the house of Circe (upper) and youths and women (lower) very similar to, but not by the same hand as, a krater in Bologna, and dating in the middle of the fifth century; and (3) a head of a woman, somewhat under half life size, modelled in bees-wax, of Hellenistic style, said to have been found at Alexandria. This type of sculpture, common in antiquity, has almost entirely vanished, rendering this head a great rarity.

**Two Classical Gems.**—CHRISTINE ALEXANDER notes, in *BMMA.* xxxiv, 1939, pp. 263-264, the loan to the Metropolitan Museum of two

interesting gems—one, a Greek intaglio of a stag, in sapphirine chalcedony of scaraboid form, of the late fifth century, the other a Roman intaglio of a herdsman with goats, dating in the middle Imperial era.

### SCULPTURE

**Marble Head of a Horse.**—The Detroit Institute of Arts has acquired a fine head of a horse, in Pentelic marble, formerly in the collection of Giacomo Nunez in Rome, and said to have been found in the neighborhood of the ancient Gardens of Sallust. It is believed to be an original Greek work of the fourth century, rather than a Roman copy, from the excellence of its workmanship (FRANCIS W. ROBINSON, in *Bull. Detroit Inst. Arts* xix, pp. 83–85; fig.).

### VASES

**Early Greek Vases.**—In 1941 the Metropolitan Museum acquired two interesting vases, published by GISELA M. A. RICHTER in *B.M.A.* xxxvi, 1941, pp. 187–190 (3 figs.). The first is a Corinthian plate, said to have come from Attica, decorated with the design of a Chimaera. It belongs in the Middle Corinthian period (600–575 B.C.) and to a group put together by Payne (*Necrocorinthia*, p. 313) as by one hand. Payne terms the artist the Chimaera Painter. The second vase is an Attic black-figured panel-amphora, dating about 550, formerly in the Hearst Collection. It is decorated on both sides with the combat of Herakles and the Nemean Lion, a very common subject on Greek vases. The hero here slays the lion with a sword, rather than with the club, or by strangulation.

**Amphora with Price Inscription.**—In *University California Publ. in Class. Arch.* 1, no. 8, 1941, pp. 179–206, plates 25–27, D. A. AMYX publishes a small black-figured amphora from Orvieto, formerly in the Bourguignon collection, and now in the Hearst collection at San Simeon. On the obverse is a soldier carrying helmet, shield, and spear; in the field to the right of the figure is an inscription:  $\delta\upsilon\omicron\beta\epsilon\lambda\omicron\kappa\alpha\iota\mu\epsilon\theta\iota\gamma\epsilon\varsigma$ . On the reverse a nude male figure carries a tripod on his head. The author places the amphora in Beazley's Group E, and tentatively identifies the soldier as a victor in the hoplomachia, followed by his attendant with the prize tripod. Kretschmer's original reading,  $\Delta\upsilon\omicron\beta\epsilon\lambda\omega\ \kappa\alpha\iota\ \mu\epsilon\theta\iota\gamma\epsilon\varsigma$ , "For two obols I'm yours," is adopted as most satisfactory, and the inscription thus becomes the only

known price inscription painted by the artist on the surface of a vase. The author examines the evidence offered by numerous price graffiti, and constructs a list of prices of pots of various shapes, ranging in date from mid-sixth century to the late fifth century. The price of two obols for the present amphora is in accord with the known prices of Greek pottery.

**Two Red-Figured Oenochoe.**—GISELA M. A. RICHTER, in *B.M.A.* xxiv, 1939, pp. 231–232 (3 figs.) publishes two squat oenochoe of the so-called *choas* shape, in the Metropolitan Museum. They date in the late fifth century, and the designs which adorn them show scenes from the Festival of the Anthesteria, a brief description of which is given. The first vase shows a bearded man dancing between two boys; he is nude, and one of the boys holds his clothes. The boys are wreathed—one holds a torch, and the other apparently is beating time for the dancer. This scene is probably connected with the opening of the wine casks on the first day, or with the Feast of Pitchers on the second, as the dancing man carries a jug in his left hand. The second vase shows the celebrant coming home. He is in front of his house, and his wife, carrying a lamp, is opening the door. A lamp in the Museum's collection, similar to the one held by the woman, is illustrated. Such scenes are not rare on vase-paintings, but these two are interesting for their relatively large size, and vivid and humorous delineation. The vase with the home-coming scene shows an attempt to achieve perspective.

### ROME

#### GENERAL AND MISCELLANEOUS

**Cameo at Minden Cathedral.**—In *Westfalen* xxv, 1940, Heft 1–2, pp. 1–6, FRIEDRICH MATZ identifies the antique cameo of a liturgical cross in the cathedral treasure of Minden as a portrait of Domitian. Through comparison with other portraits of the emperor, he dates it in the years of the beginning of his reign, about 81 A.D. The cameo thus belongs in a time which has not yielded any other comparable pieces. Seeking to deduce from it the style of the cameos post-dating the period of Claudius and not treated in Furtwaengler's corpus, Matz cites as salient characteristics a flattening of relief, the exploitation of coloristic effects and a stronger stylization of the features.

L. E. A. E.

## INSCRIPTIONS

**Roman Inscriptions from Athens.**—In *Hesperia* xi, 1942, 29–103, J. H. OLIVER publishes with an index of names 41 inscriptions of Roman date from the Athenian Agora. All are lists of names: no. 37 is one of the latest preserved lists of *epheboi*, and is now nearly complete; nos. 38–41 are of less certain nature; and nos. 1–36 all are lists of *prytaneis* and/or of their associated *aeisitoi*. The texts are published with excellent photographs and full commentaries on names and offices. Oliver reserves for another publication the study of names, citizenship, and population which is suggested by about 500 names here presented. Of the three appendixes, two are *addenda* to previous articles; the other appendix contains in useful form an archon list for the period of the Roman Empire, with the additions and corrections made since 1931, all collected tidily in footnotes.

## EARLY CHRISTIAN, BYZANTINE, ETC.

**The Ship of the Soul.**—In *PAPS*. 85, 1941, pp. 84–91, CAMPBELL BONNER discusses The Ship of the Soul on a group of Grave Stelae from Terenuthis. Some 125 small grave stelae from the end of the fourth or beginning of the fifth Christian century were found by the University of Michigan 1935 expedition in lower Egypt at Kom Abu Billu, thought to be the ancient Terenuthis or its necropolis. These stelae are of modest dimensions, 18 x 18 inches or smaller, and were set into the grave mounds themselves. Most of them show the customary banquet scene, the deceased reclining on a couch, etc. Four of them represent the deceased in a boat or about to enter one. The workmanship of all is poor, a simple incision making a deep shadowed outline around the figure which is in low relief. The background is not cut away. Many show traces of color.

The Christian symbolism of the boat, taken over in part from the earlier Greek analogy between the vicissitudes of life and the dangers of seafaring, found ready acceptance in Egypt. The figure of Charon gave way, for example, to that of Noah for both Jew and Christian, and for the latter especially fitting was the concept of Christ as pilot for his Church, as recalling the storm on the Lake of Galilee. There also persisted the idea of the individual life as the ship with Christ as its pilot. Parallels have been studied from Roman tombs. In Egypt there is the further concept of the ferryman of Osiris, who conveys the soul

across the river to the god's abode, as shown in certain chapters of the *Book of the Dead*. Detailed descriptions of the stelae are assisted by the seven excellent figures that illustrate the article.

**Near Eastern Installations in New York, 1939.**—M. S. DIMAND, in *B.M.A.* xxxiv, 1939, pp. 122–126 (3 figs.) describes two new galleries of Pre-Islamic and Early Islamic Art opened during that year. Selected for illustration and especial comment are a stone arch of Coptic workmanship of the sixth century, decorated with scrolls of palm leaves, and of pomegranates and figs; an Iranian silver dish of the Sasanian period, of the fifth or sixth century, with a relief design of a mounted king, hunting ibexes with a bow and arrow; and of the Islamic period, a stucco panel from Nishapur, dating late in the tenth century, decorated with medallions enclosing palmette scrolls, and other abstract devices. Not illustrated, but commented upon at length, are Coptic, Sasanian, and Islamic textiles, Sasanian reliefs, and Islamic wall-paintings of abstract subjects.

**Byzantine Altar Frontal.**—JAMES J. RORIMER, in *B.M.A.* xxxiv, 1939, pp. 116–118 (fig.), publishes an embroidered linen altar frontal in the Metropolitan Museum, dating in the later Byzantine style of the fifteenth century, representing the Deësis, with Christ enthroned between the Virgin and St. John the Baptist. The background is filled with intertwining vines, ending in conventional flowers. Originally the ground was of red damask sewn in small pieces to the linen, with the embroidery in silver. Most of this damask has gone. The hair of Christ and St. John was of yellow silk; blue was used in the drapery of the Virgin, and red in that of Christ. Although the criteria for dating such things are not numerous, the date given above seems to be approximately correct.

**Chronology of Turkish Pottery.**—In a pioneering article, ALISON FRANTZ publishes the pottery of the Turkish period from the Athenian Agora (*Hesperia* xi, 1942, pp. 1–28), with a catalogue of 94 pieces and excellent photographs of them all on special paper. A blue and white painted ware is proved to be local and is dated to the first half of the seventeenth century or earlier, by the discovery of two kilns under the Church of the Vlassarou. In all, 13 kinds of ware are distinguished; they were found in ten groups (chart on p. 4, summary on p. 17), of which groups 1–5 are interrelated and date from the late sixteenth or



early seventeenth century; likewise groups 6-10 are interrelated, a date in the eighteenth century being attested *inter alia* by a coin of 1773, found in an eleventh group, which came to light in 1940 and was available for comparisons, though not for publication (p. 3). Only chronological value is claimed for most of the pieces, but the lion pitcher (pp. 2 and 20; fig. 12) and especially the bird bowl (p. 2; fig. 36) are charming and in a sense Hellenic.

**Iranian Mihrab in New York.**—In *BMMA*. xxxiv, 1939, pp. 136-137 (cover illustration) M. S. DIMAND publishes a faience mosaic mihrab, said to come from Isfahan, now in the Metropolitan Museum, and dated in the fourteenth century. This technique of faience mosaic is peculiar to Muhammadan Iran, and examples of the fourteenth century are extremely rare, only two others being known. The date is limited to the period between 1325 and 1335. A detailed description of the mihrab, and of the technical processes involved in its manufacture is given. The style is characteristic of the Mongol period in Iranian art.

#### MEDIAEVAL

**Head from Notre Dame, Paris.**—JAMES J. RORIMER publishes a limestone head in the Metropolitan Museum which he believes came from the twelfth-century statue of King David which stood on the south side of the portal of St. Anne, the right-hand entrance of the West Front of Notre Dame. The sculptured figures were destroyed during the French Revolution in 1793, and, barring this head, only a few fragments in the Cluny Museum remain (*BMMA*. xxxv, 1940, pp. 17-19; 5 figs.).

**Crusader's Sword Pommel.**—The Metropolitan Museum received in 1938 the gift of a French thirteenth-century sword pommel, bearing in enamel the arms of Peter of Dreux, Duke of Brittany, who lived about 1190 to 1250, and made the Crusade with St. Louis. This is published in *BMMA*. xxxiv, 1939, pp. 211-231 (2 figs.), by STEPHEN V. GRANCAY. This Peter of Dreux was the grandson of Louis VI of France, and besides the Duchy of Brittany, held the barony of Richmond in England. He and his family appear in the stained glass windows of the South transept at Chartres. One side of the pommel bears the arms of Dreux, the other the Crusader's cross, with lilies, in champlevé enamel. As Peter was captured by the infidel at the battle

of Mansourah, it is not surprising to learn that the donor of this pommel purchased it in Damascus.

**Mediaeval Embroidery.**—In *BMFA*. xxxix, 1941, pp. 10-12 (2 figs.), GERTRUDE TOWNSEND publishes a small piece of embroidery in the Museum of Fine Arts in Boston, probably belonging to the thirteenth century. It is part of a bag once used for holy relics, and its existence has been known for some time. It is of German make, and bears the signature HADEWIGIS ME FECIT. The border is composed of armorial shields, and the technique is described as *opus araneum* (spider-web stitch). The colors employed include green, red, blue, and ivory. The article concludes with references to similar objects in other museums and churches, and a hope that it may be possible to learn more of the maker.

**Fourteenth-Century French Madonna.**—In 1939 the Metropolitan Museum obtained what is described by WILLIAM H. FORSYTH as "the finest European seated statue it has yet acquired" (*BMMA*. xxxiv, 1939, pp. 248-250 (fig.), 271-272 (fig.)). This represents the Virgin and Child, and while standing Virgins are common, the seated type is extremely rare. Much of the original coloring is preserved. The pose and style of the figure suggests a date not long after 1300, as the developed fourteenth-century manner does not appear. It is practically certain that this statue was originally made for the village church of Saint-Chéron in Eastern Champagne, as the figure bears close analogy with work done in that neighborhood and in Lorraine. In the church it appears to have stood in a tabernacle over the main altar—but it must have been removed before 1883, as it is not included in an inventory of the contents of the church in that year.

**Bronze Baptismal Font.**—The Museum of Fine Arts in Boston has recently acquired a remarkable bronze font, dated by an inscription in the year 1483, formerly in the Clarence H. Mackay Collection, and before that in other private hands in Europe. This is published by GEORG SWARZENSKI in *BMFA*. xxxix, 1941, pp. 88-94 (7 figs.). Barring a more primitive example in the Musée de Cluny, this is the only one in a museum, although there are many in churches. It was made in Lower Saxony and is signed by its maker (Got)eke Klinghe, a member of a famous family of bronze casters of that region. The font is supported by four standing figures, each of whom bears a shield with a coat of arms, and by a care-



ful study of these arms it may be possible ultimately to identify the church for which it was made. The earliest member of the Klinghe family, Gerd, lived in Bremen, and his work dates from 1433 to 1474; this Goteke was probably his son, and his works range from 1475 to 1499. Three other fonts by him are known; one, dated in 1477, no longer exists, and so this specimen in Boston is the earliest of his fonts extant. His influence was derived not only from his father, but from his elder brother Hinrik, as is shown by the fonts signed by them. On the font is represented the Crucifixion, with the Virgin and St. John, and the Apostles, thirteen in number, each saint identified by his name and attributes. St. Paul is missing, but Sts. Mathias and Luke are included: St. Matthew, however, is given the attributes of St. Paul, and St. Luke those of St. Stephen.

**Mediaeval Spanish Relief.**—In 1938 the Metropolitan Museum acquired a painted wooden relief, formerly in the Hearst collection, said to have come from Northern Spain, representing the Miracle of the Palm Tree, an incident which occurred during the Flight of the Holy Family into Egypt. This is published in *BMAA*, xxxiv, 1939, pp. 197–200 (2 figs.), by WILLIAM H. FORSYTH. Mary is shown mounted on an ass, with the Christ-child in her arms; Joseph is plucking fruit from a palm tree, the trunk of which is bent down within his reach by two angels. The fruit does not consist of dates—perhaps the sculptor was not familiar with them. The composition seems to be derived from an engraving, dating before 1476, by Schongauer, who profoundly influenced late Gothic Art. The sculptor may have been a Spaniard, but was more probably a foreigner working in Castile. The material is seasoned walnut; it was first hewn in the rough, then the finer carving was done; then several coats of gesso were applied before the detail painters completed the work, in this case in gilt, crimson, purple and blue. It was made to be placed above eye level, and is apparently to be dated between 1490 and 1510, perhaps about 1500.

### RENAISSANCE

**Lombard Renaissance Sculpture.**—W. R. VALENTINER publishes, in *Bull. Detroit Inst. Arts* xix, pp. 3–7 (4 figs. and cover illustration) two pieces of sculpture in Detroit, belonging to the Lombard school of Renaissance Sculpture. One, a head of an angel, formerly in the Trivulzio collection in

Milan, is attributed to Benedetto Briosco, contemporary and friend of Leonardo da Vinci; the other, a seated Madonna, is probably the work of Antonio Lombardo, the period of whose activity is limited to the first years of the sixteenth century, as he died in 1516. Accounts of both these sculptors are given, and other works by their hands illustrated, to clarify the attributions.

**Michelozzo's Rebuilding of SS. Annunziata in Florence.**—In *Mitt. des Kunsthistor. Instit. in Florenz* v, 1940, pp. 402–422, WOLFGANG LOTZ by means of new evidence—drawings and building-accounts—reconstructs SS. Annunziata in Florence as it was rebuilt by Michelozzo between 1444–1481. According to the reconstruction of Lotz, who makes changes in Heydenreich's previous reconstruction, the nave was transitional between a Gothic basilica and a Renaissance "hall-church," while the tribune recalled ancient buildings, the Minerva Medica and the Pantheon.

D. R. C.

**Alberti's Approach to Antiquity in Architecture.** In *Journal of the Warburg and Courtauld Institutes* iv, 1940–41, nos. 1–2, pp. 1–18, RUDOLF WITTKOWER exhibits the work of Alberti as a development in which the range of diverse approaches to classical architecture during the Renaissance may be discerned. Special analyses are given of Alberti's aesthetic as it is presented in the *De Re Aedificatoria* and of the primary monuments in which its development is illustrated. An attempt is made to establish the dates of the four principal monuments discussed: S. Francesco at Rimini (1450), S. Maria Novella at Florence (1456), S. Sebastiano (first and second scheme, 1460 and 1470) and S. Andrea (1470) in Mantua.

J. F. A. T.

**Rediscovered Works in Marble by Cellini.**—In *L'Arte*, January, 1940, pp. 3–25, FRIEDRICH KRIEGBAUM, on the basis of the Escorial Crucifixion, carved by Cellini for his own tomb, and with immediate documentary evidence from the Memoirs and the inventory of his belongings at his death, convincingly ascribes the Apollo and Hyacinthus and the Narcissus in the Boboli Gardens at Florence to the artist, dating the former in 1546, the latter in 1548. A bozzetto for the Narcissus, in the Victoria and Albert Museum is also attributed to Benvenuto. S. G. X.

**Jean Fouquet: A Study of His Style.**—In *J. Warburg and Courtauld Institutes* iv, No. 1–2, 1940–41, pp. 85–102, OTTO PÄCHT, on the basis of a series of analyses of form, assigns Fouquet to a

typically French position midway between Flemish and Italian art and accounts for Fouquet's popularity in Italy. Lozenge surface composition, perspective, Fouquet's generalizing portraiture and the so-called *Juvenilia* are discussed.

G. R. C.

**Group by Battista Lorenzi.**—In 1939 the Metropolitan Museum made a noteworthy addition to its collection of Renaissance sculpture, by acquiring a splendid marble group, representing Alpheus and Arethusa, by the Florentine, Battista Lorenzi (1527?–1594). This is published by PRESTON REMINGTON in *BMMA*. xxxv, 1940, pp. 61–65 (2 figs. and cover illustration). Fortunately, the history of this group is complete. It cannot have been made before 1568, for it is not mentioned in that year by Vasari in his *Lives*; but it does figure in 1584, in an account by Raffaello Borghini, as being made for Messer Alamanno Bandini for his Villa Paradiso near Florence. This villa passed by marriage in 1653 to the Niccolini family, and was owned by them until 1830, when it was sold, but this group was taken to the Niccolini town house in Florence. On loan to the Bargello from about 1865 till 1927, it was removed in that year to the Niccolini villa at Carmignano, whence it came to New York. The group shows the moment just before Arethusa is transformed into a fountain. The figures originally stood on a pedestal at the back of a large basin in a grotto in the garden of the Villa Paradiso, and water poured forth from the jar in Alpheus' hand. Very little is known of Lorenzi, as much of his work has disappeared, but he was greatly praised by Vasari. A list of eight known works by his hand is given, all but three of which are lost or their location unknown. Besides these, he is known to have executed works which still exist for the Cathedral at Pisa, in which city he died. All of his work is in the pseudo-classical style of his age, with very fine feeling for composition and modelling. This group may well have been known to Bernini, and possibly have influenced his better known, but inferior, Apollo and Daphne.

#### FAR EAST

**Indian Sculpture in New York.**—ALAN PRIEST, in *BMMA*. xxxiv, 1939, pp. 152–158 (4 figs.), announces the opening of a new room in the Metropolitan Museum, devoted to Indian and India-influenced sculpture, including Tibet, Central Asia, Ceylon, Java, Cambodia, and Thailand. After discussing the life and influence of Buddha,

from which all this sculpture is derived, and listing some of the best-known works of the early Buddhist period (about 250 B.C.), probably by Graeco-Syrian sculptors, he passes to the Gandhāra school (50 B.C.–500 A.D.) often called Graeco-Buddhist, but far more Roman in character than Greek, a number of objects of which are included in the collection. Side by side with Gandhāra is the Mathurā school of Central India (50–200 A.D.), of which there are two examples in the Museum. Of the Amarāvati school of Southern India (150–400 A.D.), a fine fragment in the collection is selected for illustration. Other objects published include a Buddha from Chinese Turkestan of the T'ang Dynasty, a seven-headed Cambodian bust of the late twelfth or early thirteenth century, and a Hindu statue of Brahma, strongly influenced by Buddhist art, and dating in the tenth or eleventh century.

**Early Chinese Painting in New York.**—ALAN PRIEST publishes a very important Chinese painting in the Metropolitan Museum, almost unique in subject, dating from an inscription in 1157 A.D. (*BMMA*. xxxiv, 1939, pp. 254–257; 2 figs. and cover illustration.) The subject of the painting is Taoist, and depicts a long procession leading to a Paradise scene at the extreme right, and is explained by a text attached to the painting. It is in honor of Li Chung, the Spirit of the district of Shih Cheng in Kiangsi Province. The Taoist disciple Li Tao-Ching goes to the Happy Mountain and receives from the Supreme Pontiff of Taoism the sacred books of the cult, and a mandate to promote the rank of Li Chung. Coming to the paradise scene is the procession, escorted by four guardian warriors, representing the four points of the compass. Originally painted in 1157, an addition to the inscription was made in 1641, and there seem to be still later additions at the left. The painting is not signed, and its preservation is not very good; but while not the work of a great master, it has clarity of draughtsmanship, vigor, and assurance, showing a high level of production.

**Palaces of Ch'in.**—In *BMMA*. xxxiv, 1939, pp. 277–279 (fig.) ALAN PRIEST publishes a very worn Chinese scroll in the Metropolitan Museum, depicting a lovely group of palaces, attributed to the painter Chao Po-chü (flourished 1127–1162) i.e., during the Sung Dynasty. An inscription on the scroll reveals that the palaces were those of Ch'in (221–206 B.C.) and a translation of the prose poem accompanying the painting is given.

**Two Chinese Wooden Figures.**—Two Bodhisattvas in the Metropolitan Museum are published by ALAN PRIEST in *BMAA*. xxxiv, 1939, pp. 222–223 (fig.). They are of wood, much stained and weatherworn, and had originally been surfaced in gesso, with gilt and polychrome decoration, which has all disappeared. By means of other parallel figures, details of drapery, and other criteria, a date in the T'ang Dynasty, in the late ninth century, is tentatively suggested.

**Chinese Pictures on Iron.**—H(ORACE) H. F. J(AYNE) contributes a note, in *BMAA*. xxxvi, 1941, pp. 211–212, on a small loan exhibition in the Metropolitan Museum, of selected Chinese iron pictures, opened in October, 1941. They are late in the development of Chinese Art, not dating before K'ang Hsi (1662–1722). The range of subjects is confined to simple landscapes and floral groups, but they often show great vivacity and charm.

**Korean Silver Work.**—In *BMFA*. xxxix, 1941, pp. 1–7 (2 figs. and cover illustration), KOJIRO TOMITA publishes a group of objects of Korean silversmiths' work of the Koryŏ Dynasty (918–1392), in the Museum of Fine Arts in Boston. The first is a plaque showing two dragons on either side of a precious pearl. The subject is of Chinese origin—the pearl in this case probably represents the sun, as it is flanked by two smaller ones, which are then to be considered the moon, and a composite representation of the planets. It belongs in the late eleventh or early twelfth century. The second is a reliquary of bulbous body, surrounded by lotus petals. It is surmounted by a nine-storied tee, with a lotus-fringed baldaquin, topped by a “jewel,” set in a lotus blossom. The upper body is decorated with floral designs. All the decorations are gilt. Within the reliquary are five miniature shrines in silver, for holding relics, each inscribed in Chinese with the name of the holy person whose relics they held. Investigation shows that they were robbed in times past. A long description of the holy persons is given, perhaps the first to be given in English. The evidence shows this reliquary to belong late in the fourteenth century.

**Beginnings of Civilization in Eastern Asia.**—CARL WHITING BISHOP, in Supplement to *JAOS*. 1939 (reprinted in the *Smithsonian Annual Report* for 1940, pp. 431–440, figs. 1–5, pls. 1–10), shows that understanding of the nature and origin of the civilization of the Far East presupposes the recognition of the geographical

relationship of the region to the Eurasiatic continent as a whole as a marginal one. The great land mass is crossed by two natural migration routes: one connecting northeastern India by way of Burma with western China; the other—“the corridor of the steppes”—leading from the Carpathians and the Black Sea across the greater part of Asia.

The great civilizations of antiquity all arose in one continuous area and were based on one set of funds—mental elements: the use of copper or bronze and of wheeled vehicles, the possession of the common domestic animals, the cultivation of certain cereals, especially wheat, and writing. Nowhere else in the world do we find the same stages of cultural development in the same succession: Stone Age, Bronze Age, Iron Age. This fundamental homogeneity of culture can only be accounted for as the result of diffusion.

The contacts which guided this current in an easterly direction were already apparent in China in neolithic times: in the use of millet and rice as staple foods, both of which, not being native to eastern Asia must have reached China from the West, probably from India; and in the occurrence in the late neolithic culture of China of various features long known in the Near East, e.g., the potter's wheel and the small town with walls of tamped earth.

The Bronze Age, following a “dark” period, makes its first appearance in the basin of the Yellow River, during the first half of the second millennium B.C. Traits which had long characterized the culture of the Near East now appeared in China. These included the extensive use of bronze in war and ritual, and for objects of luxury; the growing of wheat (native to the Near East); the use of the chariot drawn by two yoked horses; and a system of writing ancestral to modern Chinese script and already well developed elsewhere. In general, the Chinese Bronze Age was later in beginning, poorer in content, more archaic in aspect, than the contemporary civilizations of the Near East—a state of things to be expected in a marginal region.

The truly historical period begins in China with the Shang dynasty, in the somewhat belated Bronze Age, probably during the second quarter of the second millennium B.C. The Shang priest-kings worshipped their ancestors, together with various divinities and a supreme “Ruler Above.” The political organization of city-states resembles that of the Near East. Society among the ruling

class was on a patriarchal basis. With the Chou dynasty, western conquerors of the Shang, and later to be themselves driven eastwards with loss of political power, the Age of Bronze gives place to a belated Iron Age. The change was not completed in the Far East until after the beginning of our era.

Some time before the transition, pastoral nomadism in central Asia had begun to take the place of the sedentary planting economy of the northern neighbors of the Chinese. This change was accompanied first in the West, then along the northern border of China, by the growing use of mounted troops in warfare. Chinese feudalism was declining, owing largely to the supplanting of chariot warfare by mounted bowmen using the tactics of the northern nomads. A number of large centralized states emerged, frequently at war with one another, and paying little respect to their nominal Chou suzerains.

The need for consolidating authority over the system of irrigation and flood-control played an important part in the development of this historical process, which led finally to the rise of empire under Shih Huang Ti, king of the aggressive state of Ch'in. He created a centralized bureaucratic empire under himself as its absolute ruler. It lasted, in substantially the same form, from 211 B.C. to 1911 A.D. Again the Far East had learned a lesson from the West, from Persia and India.

**Chou Bronzes.**—LAURENCE SICKMAN publishes, in *Bull. Fogg Mus.* ix, pp. 28-34 (5 figs.), a pair of bronze vessels acquired by the Museum, which belong in the Chou Dynasty (1122-255 B.C.). They are of the type called *kuei*, and were probably used for cooked grain or vegetables. Each has a lid with a circular top, which can be either a handle or a foot when the lid is removed. This top is pierced with two holes opposite one another, to lash the lid to the body. The body has side handles, in the form of heads of horned dragons, in which are rings. The bases are supported by three short legs, topped by masks of tigers. Otherwise, body and lid are undecorated, but modelled in a series of parallel grooves. On the under side of each lid an inscription is cast, a rubbing of which, with a transcription into modern Chinese characters, is given, which translated reads: "The Prince of San made this precious *kuei* for Lady Chi of Nie—may she continue to use it forever." San is identified as a state in Shensi province, west of Hsian-fu, while Nie lay to the east of San near the present Chou Chih-hsien, both being on

the Wei river. It is suggested that these vessels were a marriage gift. By comparison with other known objects of similar type, a date between 878 and 842 B.C. is believed to be correct, although they may be somewhat later, and in any case must antedate 771 B.C., when the states of San and Nie were destroyed. These vases are said to have been found in Shensi province, not far from where many other important bronzes were discovered, and their existence appears to have been known to Chinese scholars since before 1911. The style is that now called Middle Chou, marked for simplicity and restraint in design. A list of notes and a bibliography follow the article.

**Sung Vase.**—In *B.M.A.* xxxv, 1940, pp. 82-84 (fig.), ALAN PRIEST publishes a very rare specimen in New York, of the class of Sung pottery known as Chien ware, from the province of Fukien, where it was made. Small bowls of this ware were imported into Japan, where they were always used in the tea ceremony. This vase is a tall jar, with a long neck, of buff stoneware, glazed in brownish copper and black. Only two other pieces of this shape are known, both in London.

**Chinese Ceramics in Detroit.**—In *Bull. Detroit Inst. Arts* xxi, pp. 14-15, (fig.), SHERMAN E. LEE publishes two Chinese vases in Detroit. The first is a pottery censer of the Han Dynasty (206 B.C.-220 A.D.) from a tomb, of red clay with a lead glaze, which has taken on a silvery iridescence. The other is a bowl of Ting ware of the Sung Dynasty (960-1278 A.D.) of one of the earliest porcelain types, the interior decorated with a moulded design of phoenix and peony.

## AMERICAN ARCHAEOLOGY

**Prehistoric Culture Waves from Asia.**—The *Smithsonian Report*, 1940, pp. 383-396, reprints an article on this subject by DIAMOND JENNESS, of the National Museum of Canada, Ottawa, in the *Journal of the Washington Academy of Science*, 30, 1940. Bering Strait was the only route of migration into the Western Hemisphere and the forefathers of every known division of Indians must already have crossed it by the beginning of the Christian era. Eskimo culture strata in the Bering Sea region show no profound disturbance such as would have resulted from the intrusion of an alien horde, but rather a gradual change stimulated to some extent by Asiatic as well as strictly American influences. The Aleutian Archipelago has yielded no traces of earlier remains than those



of the Aleutian Eskimo, who reached the islands from America.

The failure to link any American language with any Old World linguistic group supports the conclusion that the peopling of the New World from the Old must have taken place during a period of considerable antiquity. Ethnological considerations support this position: the traits common to Asia and America are so widely diffused in both continents that they must have been imported at an early date.

Archaeology, our most trustworthy guide, has provided only a few uncertain clues to the course of events during the millennia before the Christian era which saw the peopling and subsequent isolation of America.

The geographical position of the Athapascans along the route from Bering Strait towards the Equator, the late date of their arrival in the Southwest, the inconsiderable change in their dialects from the Mackenzie Delta to Arizona, all suggest that their movement into America did not long precede the Christian era. We may assume that they entered this continent some time during the first millennium B.C., forcing their way southward, some by way of the Mackenzie River, and others down the western slopes of the Rockies, introducing the snowshoe into the North and the bow and arrow into Pueblo culture.

Archaeological investigations indicate that the old culture of the Indians of the Northwest Pacific Coast was well established by the first millennium A.D. Ethnological evidence appears to link them on the one hand with the Eskimo and eastern Asia, and on the other with middle America and the South.

Probably the Eskimo of early times extended further south than they do now, and were pushed by the Athapascans towards the coasts of the Eastern Arctic and northeastwards to the Barren Lands west of Hudson Bay. Behind modern Eskimo culture stand three ancient ones: the Old Bering Sea culture of the West; the Thule, which originated in the West but spread to Greenland; and the Dorset culture, restricted to the Eastern Arctic. There are indications that Dorset stemmed from the same parent stock as the Old Bering Sea, and it is now suggested that the Birnirk (Point Barrow) culture is not the direct descendant of Old Bering Sea, but that both of these, together with Birnirk's offspring, the Thule, sprang from some less advanced culture of northeastern Siberia. It is even possible that the

original home of the Eskimo lay in a northern region further west. Eskimo-like earth lodges have been excavated at the mouth of the Ob River in western Siberia, and the Rayak and biderka were reported from northeastern Russia in the sixteenth century.

Recent finds of pre-neolithic microlithic industries in the Gobi Desert, on the Amur River, and at Fairbanks in Alaska may point to a culture movement, perhaps a movement of peoples, from Asia into America. More lately, also at Fairbanks, a stone spearhead of Yuma type has been found embedded in a bone of a mastodon. Yuma points are related to the Folsom complex, the oldest known in America. The Fairbanks discoveries may indicate that some of the early migrants went up the Yukon Valley, crossed to the eastern side of the Rockies, and travelled down the eastern foothills into what is now the United States.

**Prehistoric Site in Ontario.**—E. F. GREENMAN contributes to *Man* xli, 1941, pp. 67-68, a letter regarding the excavations conducted by him for the University of Michigan in the Manitoulin district of Ontario in 1940. These excavations revealed a prehistoric workshop, where implements were made of local white quartzite. A description is given of the various types of implements found. No pottery, bones, or flints came to light. The site is below the last glacial Great Lakes level.

**Costumes of Pre-Columbian Peru.**—In *Brooklyn Museum Quarterly* xxvi, 1939, pp. 4-20 (16 figs.), EDDA V. RENOUF devotes a leading article to this subject, many of her illustrations being taken from pottery and textiles in the Museum's own collection. As the ancient people of Peru have left no written records, our sole evidence comes from the contents of tombs. The earliest Chimu textiles in the North have been destroyed by soil erosion, but large quantities of textiles, some of them over a thousand years old, have been discovered along the arid coastlands near Lima. Nothing is known, however, of the beginnings of their textile art, as the earliest specimens to be found already reveal a complete knowledge of almost every known technique. The basic garment forms seem to have been evolved in the earliest age, and except for variations in headgear and ornament, to have remained fairly constant throughout the pre-Inca and Inca periods. The materials used include cotton, fibre, wool, and feathers attached to a textile base. From pottery we know that the early Chimu wardrobe consisted of breech-clout, tunic with or without



sleeves, mantle, headgear, and possibly socks. The breech-clout was the basic garment and was universally worn till the Spanish conquest; it consisted of a triangular piece of cloth, fastened by tapes around the loins, and hung down in a short flap behind. The tunic for the upper part of the body was of varying styles, being long or short, sleeveless or (oftener) with short sleeves. The mantle was a rectangular piece of material, and was often very ornate, worn over the shoulders and fastened at the chest. The tunic of the women was always long. The style and decoration of the headdress determined the rank and position of the wearer—military, social, or religious. As there were no pockets in these clothes, a pouch or bag was slung over the right shoulder, or carried in the hand. Where actual textile objects exist, in mummies in the coast burials at Paracas, the garments appear to consist of the mantle, a long cloth which is probably a turban, the tunic, loincloth, sash, and various forms of headdress. The most richly decorated garment is the mantle, a rectangle usually about two metres by one and a half. It can be either of cotton or wool, and the designs often show human figures, thus indicating how the garments were worn. Various styles and sizes of tunics are known—they are nearly always of wool, either with sleeves, or with fringes which take their place. The turban is usually of cotton, the sash of cotton fringed with wool, the head-band of wool. The headdresses and helmets seem to carry on the designs on the earlier pots. To show the type of costumes found, a number of mantles in the Museum's collection are illustrated. Either synchronous with Paracas, or slightly later, are the early Nazca finds, where the costumes remain much the same in type. Coming to the Inca period, we find the same clothing worn as by their predecessors, with the addition of sandals, the most distinctive feature being the headgear, each grade in the social scale having a different type. The Inca women wore a long tunic from below the armpits to below the knees, kept in place by a pin and a girdle—sometimes two girdles were worn. Over this tunic a mantle was placed, and a kerchief was worn on the head. Both sexes wore jewelry of gold, silver, copper, and precious stones—ear ornaments, breast-plaques, necklaces, bracelets and rings have been found. Clothing played a very important rôle in the Inca Empire, the Emperor maintaining a sisterhood of maidens whose sole duty was to make and decorate his garments, which he never wore

twice, and which could be worn by no other man.

**Masked Medicine Societies of the Iroquois.**—In the *Smithsonian Report* for 1940, pp. 397-429, pls. 1-25, WILLIAM N. FENTON discusses this most interesting subject. The Iroquois of New York and Ontario are among the oldest of Indian groups to be found on reservations. In several communities, not more than a day's journey from New York City, the masked shamanist societies still function. The rituals are best preserved in the conservative centers of the Seneca and among the mixed Onondaga and Cayuga of the Grand River.

The function of the Society of Faces is determined by the concept of reciprocal services between the two divisions of Iroquois society. Every ceremony is considered to be given by one half of the tribe for its cousins of the opposite moiety.

The "faces" are likenesses or portraits of mythological beings who, the Iroquois say, once inhabited the regions at the end of the earth or wandered in the forests. The wearers of the masks behave as if they were the supernatural beings they impersonate—the Wind or Disease gods of two classes and several varieties. Iroquois hunters often met, they say, uncanny beings who darted from tree to tree in the forests, appearing as heads only. They agreed not to molest human beings, on the condition of receiving some of the Indian tobacco and white cornmeal which the hunters carried. But the being represented by the mask with wry mouth and crooked nose has appeared to few people, for he promised the Creator to abide in inaccessible places at the rim of the earth. He is the ruler of the forest people, the Common Faces. These also claim the power to control disease. They instructed those who "dreamed" them to carve masks as likenesses which would confer on those who wore them the power to cure disease, when the feast is made ready, the help of the Faces invoked in the "curing songs," and Indian tobacco burned.

These medicine societies employ masks in performing public and private rituals. The public ritual of the False-face Company (wooden masks) is used at the exorcism of disease from the settlements in spring and autumn and at cures which may be sponsored in the longhouse during the Midwinter Festival. The Common Faces have their own ritual; they enter a house and dance. They may be followed by the great world-rim Faces, whose ritual is the Doorkeepers' Dance.

The people who have been cured by a masked company form the Society of Faces.

The separate society of Husk Faces appears publicly at the Midwinter Festival. They also have their own ritual—an invocation, songs, and a “curing dance.” At private meetings for healing, two of their members sometimes appear as doorkeepers for the Common Faces; they act also as heralds and longhouse police at public ceremonies.

An Iroquois joins a particular medicine society as the result of a dream or because a clairvoyant has prescribed the ritual of that society as a cure for an illness.

If a member has not inherited an old mask, he must carve one for himself or employ a wood-carver. The face is carved on the living tree. First it is roughed out in the wood, then the tree is notched with an axe above and below the face and the carved portion is cleft away in one piece to be finished as a mask. Burnt offering of native tobacco is made to the tree and a prayer is addressed to it and to the beings represented by the False-faces.

#### U.S.S.R.

**Ukraine.**—During the preparation of a report on Izium and the Bakhmut area O. A. KRIVTSOVA-GRAKOVA (*Sbornik statei po arkheologii SSSR* [Collection of articles on the archaeology of the U.S.S.R.] ed. by A. I. A. Briusov, *Trudy Gosudarstvennogo istoricheskogo muzeia* [Contributions of the State Historical Museum] viii, Moscow, 1938) wrote on the genetic connections between the Īamnaia (“Burials in Fosses”) and the Katakombnaia (“Burials in Catacombs”) cultures.

According to Gorodstov, who was the first to describe the successive stages of Bronze Age cultures, the Īamnaia culture preceded immediately, but was not connected genetically with the Katakombnaia burials, although occasional finds related to a culture very close to that of the Īamnaia were found occasionally in Katakombnaia burials at Nikolaevka and Machabelovo near Bakhmut and Izium. Further excavations in this area have established a much closer connection. At Serogozhy and Belozherka, F. Braun found in tumuli of catacomb type flexed dorsal burials, oriented to the northeast, the typical position for Īamnaia burials. A succession of burials in a single tumulus at Nikopol, excavated during 1937, revealed six flexed dorsal Īamnaia burials in the lower part of the tumulus, with flexed lateral

burials of the catacomb type in the superstructure of the tumulus. The former contained objects associated with the catacomb culture such as baton-shaped bone pins and a flat-based, unornamented vessel associated with the Īamnaia culture was present in one catacomb burial.

The evolution of the pottery sequence can be demonstrated clearly from the unornamented, pointed-based vessels of Īamnaia culture to the larger, highly ornamented flat-based pots of Katakombnaia types. The ornament progresses from the sparing use of the “fir tree” stamped ornamentation of later Īamnaia vessels to the profuse use of the same ornament by the Katakombnaia people. The triangles used to decorate the shoulders of later Īamnaia vessels are also present in the early “catacomb” pottery, and form a part of the more complicated ornament of the later period. The same phenomena are true of sites of the Īamnaia culture in the Don area, at Simferopol and Rostov, where Katakombnaia bronze inventories related to the Bronze Age of North Caucasus are found in association with the round-based vessels.

KRIVTSOVA-GRAKOVA concluded that the Katakombnaia culture developed as a result of the gradual evolution of the Īamnaia culture. She explained the extensive tumuli containing Īamnaia burials on the right bank of the Dnieper near Kiev with the typical flexed inhumations accompanied by pointed-based vessels, by the outlying character of this area with respect to the centers of origin of the Īamnaia and Katakombnaia cultures near the Don River.

The Īamnaia burials in the Kiev area were succeeded at the end of the third or at the beginning of the second millennium by the as yet little known culture of tumulus burials, accompanied by characteristic bell-shaped pottery, which Gorodstov has called the “Dneprovian” culture. The area further south, near Dnepropetrovsk, shows a normal transition from the clearly expressed Īamnaia to the Katakombnaia culture.

**Crimea.**—During 1940 M. M. KHUDIAK published (in *Soobshcheniia Gosudarstvennogo Ermitazha* i, pp. 21–23, Leningrad, 1940) a report on the excavations at Nymphaeum.

According to a fourth-century B.C. commentary to Aeschines, Nymphaeum was located seventeen kilometers southwest of Kerch, near the modern village of Elsingén. Nymphaeum was first surveyed tentatively during the nineteenth century

by Dubruques[?] and P. N. Kondakov. In 1938, L. Silant'eva, a member of the Kerch Expedition from the Hermitage Museum, began excavations at this site. In the following year, M. M. KHUDIAK excavated the *gorodishche* which was triangular, with its apex directed toward the sea. A creek on the west, forming the base of the triangle, separated the site from the sea. Beyond the creek stretched numerous tumuli. During 1939 about 800 square m. were uncovered. In the upper levels, several Roman buildings were unearthed. On the northern slope of the plateau a large building was found. Three well-preserved slabs led into the large paved courtyard. Drains from the courtyard built upon rock passed through the wall of the building. The walls of the living quarters, buried under a thick deposit, will be excavated later. This building was erected upon a large cliff, which served as a city square during the Classical periods. Another building of the same period (second to third centuries A.D.) was uncovered near the southern slope of the plateau. A room containing a stove opened upon a paved yard adjoining a store room, in the floor of which three pear-shaped storage pits and a hearth were found. This dwelling complex was built over the ruins of a defensive wall paralleling the slope of the plateau. This wall was attributed to the fourth century B.C. A large pithos was discovered between the wall and the outcrops serving as an outer defense. Beneath the defensive wall were found several buildings attributed to the fifth century B.C. On the partially preserved clay floor of one of these buildings were found several pieces of fifth-century Attic pottery, including black lacquer ware with stamped ornament, wine cups, and plates.

Further explorations will shed light upon the independent existence of Nymphaeum during the Classical period, and the character of its submission to the Bosporean State under the earlier Spartacides.

On the lowest terrace of the cape at the seashore were found the remains of a sanctuary of elongated, rectangular form. Outside the structure near the outcrops on the plateau stood the foundations of an altar, built of two courses of dressed stone slabs. Inside the sanctuary were several enclosures. The finds included fragments of terracotta figurines, hydrophorae (women carrying water-jars) protomes of goddesses, standing feminine figurines and votive vessels. The sanctuary existed from the fifth to the second centuries B.C.

The excavations disclosed the stratigraphy of the sites, showing that on the upper plateau the cultural level of the Roman period overlies a stratum of the Classical period. Objects attributed to the Hellenistic period were discovered on the lower terrace.

M. A. SHANGIN has published (*Vestnik Drevnei Istorii* 1940, No. 3, pp. 72-87) fifteen Greek and Latin inscriptions in the Chersonesus Museum.

(a) Invocation at the end of the oath of Chersonesus (Latyshev, *Ios PE* 12, No. 401) is found to parallel the Amphictyonic invocation at the destruction of Cyrra (Aeschin. in *Ctesiph.*, Reiske iii, p. 502) and the Paphlagonian invocation appended to the oath pledging loyalty to Augustus (inscription from Neoclaudiopolis, *Studia Pontica* iii, p. 75, No. 66). The formula found in the Chersonesus oath goes back to the beginning of the sixth century B.C., surviving as late as the first century A.D. (reign of Augustus).

(b) Oblong boulder inscribed with a numeral ( $\Delta\Pi\Pi\Pi\Pi=19$ ) 0.28 x 0.20 m.; a similar boulder published by Latyshev (*Ios PE*, No. 653), found near the Chersonesus, where in the Hellenistic period were located fish stores. SHANGIN supposed that the numeral indicated the weight of fish rationed to individuals by the State during the periods of economic difficulties. (c) Fragment of a gray, marble slab, inscribed on both sides with a catalogue of names. Found by Leper in 1911 forming the door sill of a Byzantine building. Dated in second century B.C. (d) White marble headstone, attributed to the second century A.D. Nos. e and f are new readings of fragments of mortuary inscriptions already published by Latyshev but not connected by him (*loc. cit.* No. 1, 518 and 459; 622 and 497).

(g) Inscribed lead urn, dated in second or third century A.D. (from Leper's excavations of 1913) showing the survivals of Doric dialect in proper names while in conjunction with κοινή text.

(h) A tombstone of the third century A.D. of Bassos, son of Paterios; the inscription is in hexameters. (i) Fragments of a Latin tombstone of a legate, son of Publius; previously published in part by Latyshev (*op. cit.* No. 630); the additional fragments were found after 1912. The inscription mentions the existence of a Roman garrison in the Chersonesus during the reign of Diocletian and Maximian. The slab records the fact that the deceased served in Italy and in Pannonia. (j) Four Greek inscriptions from slabs originally forming parts of sarcophagi, but used

later on the floor of a fifth- to sixth-century basilica, excavated in 1939. The inscriptions are dated in the third century A.D. One of the slabs contained apotropaic symbols (jug, axe, and a serpent; cf. slab described in *Studia Pontica* iii, No. 35, e). (k) Fragment of inscription, found in 1914 by Leper in the common baptistery of the basilica, and first described (incompletely) by Latyshev (*IAK*, xv, p. 16). According to SHANGIN, the inscription belongs to the fourth or fifth century A.D., and refers to the regulation of relations between the Chersonesus and the eastern regions of the Empire. The decree was issued by Honorius (and Arcadius) in confirmation of an earlier decree by Theodosius, apparently establishing the right of the Chersonesus to conduct commerce with neighboring peoples under the control of a *comes commerciorum*. (l) Two inscribed pithoi, found in Sebastopol during 1930, dated in the seventh or eighth century A.D. The inscription, according to SHANGIN, refers to the slaves of the owner of a winery. One of the pithoi bears a series of inscriptions, one of them reading: πλυάδα γυνή τοῦ κυληκ[ίου]. SHANGIN connects this nickname with the mimes of the later Classical world. Both pithoi also bear Christian symbols and inscriptions, e.g. κύριε, βοήθη τῷ δοῦ[λῳ] . . .]. (m) A tombstone of the tenth century with the cross and the well-known formula, ΦΧΦ (cf. Latyshev, *IAK*, xxvii, p. 33, No. 29) contained an additional inscription not seen by Latyshev: Φεῦγε ζῆλ[ε] Χ[ριστό]ς σε δηόχ[ει] [sic!] (n) On the Heracleian peninsula in 1928 a tombstone of Hegumenos Julian of St. Stephen's monastery, who was born in the reign of Phokas (963-969 A.D.), was found. The inscription shows influences of modern Greek, unusual for the middle of the eleventh century, the period in which the tombstone is dated. A Byzantine bracelet of the eleventh (?) century, found in the Chersonesus during 1936, with an inscription in yellow paint or enamel:

ἀλλοῦσιν [-ἀλλοιοῦσιν]  
φοροῦσιν  
φιλοῦσιν

**Uzbek S.S.R.**—1. About three miles south of Samarkand lies the site of Tali Barzu, excavated during 1936-1938 by the Samarkand Museum and since 1939 by the Hermitage Museum-Zarafshan Expedition jointly with the Institute for the History of Material Culture (IIMK). Tali Barzu covers an area of some five hectares. According

to G. V. GRIGOR'EV ('*Gorodishche Tali Barzu*', Hermitage Museum, *Travaux du Département Oriental* ii, pp. 87-104, 1940 and *IA Akubovskii*, '*Zarafshanskaia ekspeditsiia*, 1939,' loc. cit., pp. 64-70), this was probably but a small portion of the ancient city. In the center of the square *gorodishche* rises a mound eighteen m. in height. The first excavations showed that the entire mound consisted of the debris of buildings, that the settlement was abandoned at the beginning of the eighth century, and that one of the six strata belonged to the Hellenistic period.

**Tali Barzu I.**—The lowest stratum was found to lie under the platform of a building belonging to a subsequent period (Tali Barzu II). The finds date it in the first half of the first millennium B.C. The pottery is analogous to Anau III (dated by Erich Schmidt in the second millennium B.C.) and Tepe Hissar I (third millennium B.C.) especially the tall vases, painted red, but considered by Grigor'ev to be a survival in the case of Tali Barzu. Similar pottery is also known from the Sacae sites near Tashkent (cf. skewer rests in the form of two-headed rams). Terracotta figurines from this stratum are the most archaic yet found in the Samarkand region. These include individuals wearing pointed Scythian caps, apparently bound with a scarf. The forehead is ornamented either with clipped bangs reminiscent of the hairdress of Scythian warriors on the Persepolis reliefs, or with a tiara of temporal rings, known in Greece and in the northern Black Sea area since the beginning of the fifth century. One of the figurines wore a headdress reminiscent of Egyptian "wigs" with clipped bangs. Another figurine apparently represents Anahita, the goddess of fertility and water, holding in her right hand a small jar. Figurines of horses, typical of this stratum, resemble those of an archaic Greek period, with no forelock but with a short, stiff mane terminating in a vertical edge between the ears.

**Tali Barzu II.**—Pottery from this stratum, attributed to the fifth or fourth century B.C., while having many traits in common with that from the lower stratum, includes a characteristic form ornamented with a ribbon motif. A pithos from this stratum was decorated with the design of the "Bull-man," Gopatshah. A figurine from this stratum was of Achaemenid style and possessed a serrated, cylindrical tiara of the type known from Achaemenid cylinder seals from Iran, and also the typical long dress and hair arrangement of that period. Shortly thereafter a new turreted castle



with hemispherical arches was constructed within the *gorodishche*. The lower part of one of the corner towers was furnished with radial loopholes. Other towers were located and several sections of the walls studied.

*Tali Barzu III.*—In the Hellenistic stratum, attributed to the third or second century B.C., new types of pottery include vessels with laterally depressed ears, pots with red circles on the sides, a new form of cup, and a typical Greek oinochoe. Human effigies appear under the handles of pots and such typically Greek motifs as petals and acanthus leaves appear.

*Tali Barzu IV.*—The Kushan period, attributed to the period from the first century B.C. to the second century A.D., is represented by a stratum 2.0–3.0 m. thick. Lying above the Hellenistic level were two horizons: the lower, composed of ashes and rubble, was rich in objects, and the upper, of dark brown clay, consisted of remains of mud brick buildings. At the end of the Kushan period the site was apparently abandoned for two or three centuries. A few of the older buildings, however, were rebuilt during this period. New building techniques appeared, such as the lancet arch and the use of baked clay slabs to face foundations. The pottery is closely related to that from the lower stratum, but much coarser. A new form of bowl is encountered; the necks of the pithoi are of a different form, but the coloring is less good; in only one instance was a human effigy present under the handle of a vessel. Typical for this stratum are coarse figurines, one depicting a horseman with large eyes, and a big nose, a large moustache and wedge-shaped beard, and wearing a tiara.

Several sacred plaques in Buddhist style were also found. A sherd of a pithos from this stratum was inscribed in Old Sogdian; the word forming the beginning of a sentence was "always." Palaeographically, this inscription was attributed to the first century B.C. To this period also belongs a hoard of twenty-nine silver coins, found by a plowman. The obverse bears a profile, facing left, of obviously Greek origin; the reverse shows the figure of an archer. Some of the coins bear a legend in Aramaic-Sogdian (?) characters.

An outer wall of firm loess, erected around the ruins, was responsible for the preservation of the remains of older buildings, most of which had been constructed of a darker and much less durable clay. The restoration of some of the buildings occurred during the Sasanian period (*Tali Barzu*

V, fifth to seventh centuries A.D.). The foundations of the wall were built of large clay blocks (3.0 x 1.0 x 1.0 m.), similar to those described by A. Terenozhkin and Tolstov from northern Khwarazm. Many pottery vessels associated with this stratum repeat motifs familiar from Sasanian silver ornaments. Thus, round cups bearing impressions of pomegranate on the sides, repeat exactly the form and ornamentation of a Sasanian silver cup described by Trever and Orbelli in their monograph on Sasanian silver. Many vessels from this period were sprinkled with mica before being baked; this resulted in a glistening surface resembling silver. Several large pottery fragments, decorated by impressed motifs of pomegranates, branches, and goats, are exact replicas in dimension and in form of Sasanian silver trays. The human effigies, stamped on pottery and figurines, show Turkish traits, in contradistinction to the Iranian type of such effigies on Sasanian objects. Some are shown armed with maces. This period is well represented at the Kafir Kala site, five kilometres from Tali Barzu. At this site I. A. SUKHAREV succeeded in identifying the potters' quarters, which contained great deposits of sherds and remains of kilns. The pottery from this site is closely related to that from Tali Barzu V, including mica-glazed pots and pots stamped with human effigies bearing Turkish traits. One impression apparently depicts a Greek tragic mask, an unusual survival for the seventh century A.D. The potters' quarter, however, was buried under loess and sand deposits 2.0–2.5 m. thick and the intensive disturbances in this area made dating very precarious. Although the site can be dated late in the Sasanian period (sixth to seventh centuries A.D. and confirmed by a coin of Washuman), several objects have been assigned to a much earlier period. For example, two stamped human effigies on potsherds depicted helmeted warriors, one in three-quarter profile, another with fine profile and in a helmet in the form of the head of a vulture probably surviving from a Greek motif (coin of Alexander).

*Tali Barzu VI.*—The most recent stratum extends over the entire area of the *gorodishche*. In a building at the highest point of the central mound, the remains of four rooms and a corridor have been excavated. In one room two coins of the Sogdian King Tarkhun (704–710 A.D.) and a Bukhar Khudat coin of the beginning of the eighth century were unearthed.

The first glazed pottery from this site was also



found in the same room. This potash glazed ware was decorated with smudgy linear and pointillé bluish-green ornament over a dirty white background. The pottery shapes were entirely different from those of the Sasanian period. For the first time appears the deep platter-bowl on a base, typical of all subsequent periods.

The site was abandoned as a settlement during the first half of the eighth century. Tali Barzu culture appears at several sites scattered widely to the east of Samarkand. According to Chinese sources, the area south and east of Samarkand was known as Mi, Mi-Mo, and Mi-Mo-He, and was later known as Maimurg. The center of Maimurg was referred to as Riwdad. Tali Barzu was probably one of the largest castles of the Riwdad area. The finds from Tali Barzu await more complete study. Thus the Hellenistic period is represented by more than twenty forms of pottery, including many complete vessels, and several hundred sherds and about ten figurines. From the beginning of the third century B.C. strong influence of Greek art can be seen; Graeco-Bactrian coins of this period show a very high standard of medal-maker's art. The Sasanian objects are no less rich.

2. During 1939 at Tali Barzu near Samarkand the image of a human-headed bovine animal without wings was excavated. CAMILLA V. TREVER of the Hermitage Museum has completed a special study of this figurine. She has examined the evidence furnished by the Pahlavi texts and the Zend Avesta with the following conclusions. The image of the mythical king Gopatshah, the guardian deity of water and irrigation, has been found for the first time in Central Asia on a piece

of native pottery from a stratum antedating the Achaemenid monuments of Fars. The name is connected with the ancient Gava ("cattle") region of ancient Kushan, now the Katta Kurgan area, famous for its rich pastures. It is also connected with the Iranian name for the mythological first man, Gayomard ("Bull-man"), not Gayomard ("Life-mortal"), as has been generally supposed. The fullest description of Gopatshah is given in a sixth-century Pahlavi text, "Menok-e-xrat;" "Gopatshah is in Eran Vez, in the *Kishear* of Xvaniras. From the feet to the middle of the body he is a bull; up from the middle of the body he is a man. And he always sits on the shore and performs libations to Gods." According to another text, "Gopatshah ruled over the land of Gopat, the boundaries of which are common with the land of Eranvez, on the shores of Daitya River (i.e. Zarafshan). He guards Hadayas the bull; because of this is achieved perfect perfection for humankind." Herzfeld connects the iconography of Gopatshah with that of Enkidu, the man-bull in the Gilgamesh myth. From this image are probably derived the representations of the god Mithra and his bull.

According to Trever the ancient name of Sogdiana was probably Gava, and the legendary promised land of the northeast of the Iranian texts, Eran Vez (according to the Avesta the home of Zarathustra), was probably another name for the land of Gava (Sogd). The title of the Sasanian crown princes, Kushan-Shah, is nothing but a later form of the title Gopat-Shah. The far-reaching conclusion suggested by Trever is that the most ancient portions of the Avesta originated in Sogdiana, and not in Iran.

## BOOK REVIEWS

STONE AGE MAN IN THE UKRAINE, by P. I. Boriskov's'kiĭ, Institute of Archaeology, Academy of Sciences of the Ukrainian S.S.R. Pp. 128, illus., maps, Kiev, 1940. [In Ukrainian].

This small book is a popular but carefully written presentation, attractively illustrated, of the palaeolithic cultures in the Ukraine, from the first large-scale excavations (by Khvoiko, in 1893) to the latest finds at the famous sites of Mezin, Gontsi, and Pushkari. The book is divided into eight chapters: 1. Glacial Period; 2. Earliest traces of human culture in the Ukraine; 3. Transition to the Upper Palaeolithic Period; 4. Mezin; 5. Lower Palaeolithic man in the territory of Kiev; 6. Gontsi; 7. End of Lower Palaeolithic Period; the highest stage of savagery; 8. Neolithic Period.

This account, intended for the general reader, has some of the charm of Breasted's *Ancient Times*. The interest is particularly enhanced by numerous line drawings, some of them really inspired, of Palaeolithic fauna and implements.

Illustrations include reconstructions, on the basis of recent finds, of such Quaternary fauna as the Siberian rhinoceros, cave bear and cave lion. Of great interest are the original reconstructions of tools and dwellings, both in this and in later periods.

The earliest site in the Ukraine, according to Boriskov's'kiĭ, is the Lower Mousterian station at Kodak, on the right bank of the Dnieper, discovered in 1927 during construction of the dam at Dniepropetrovsk. Flint flakes were found in association with mammoth, Siberian rhinoceros, great-horned deer, reindeer, bison, bear, and lion.

The author concludes with a description of Neolithic finds at Mariupol, where in 1930 were found 124 burials with rich polished stone and bone inventories.

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WHEN EGYPT RULED THE EAST, by George Steindorff and Keith C. Seele. Pp. xvi+284, 109 ills. University of Chicago Press, 1942. \$4.00.

As its title implies, this is essentially a short history of Egyptian culture during its phase of

imperial expansion, primarily in the eighteenth dynasty. Actually it is of somewhat wider scope, for it attempts to place this period in its proper setting by the inclusion, preceding the main discussion, of chapters on the earlier history of the country, and by two final chapters on the Rameside period and the decline of ancient Egyptian civilization.

The scope of the work will perhaps be best shown by indicating briefly the matter treated in its seventeen chapters. The first begins with an account of the rediscovery of ancient Egypt by the scholars who accompanied Napoleon's expedition at the close of the eighteenth century, and of Champollion's decipherment of the hieroglyphic script. It goes on to describe the sources from which our present knowledge is derived and to discuss the reasons for our still incomplete and distorted picture of Egyptian civilization. Finally, it explains the chronological framework of the "dynasties" and ends with a discussion of the origins of the Egyptian race. Chapter II is a masterly summary, condensed into some thirteen pages, of the early civilization from its prehistoric beginnings through the Old and Middle Kingdoms, while Chapter III deals with that still very imperfectly understood foreign invasion by the "Hyksos" which was to have so stimulating an effect on the latent martial spirit of the Egyptians. Chapter IV, "The War of Liberation," deals with the expulsion of the Hyksos by Kamose and Ahmose. Thus closes the introductory section of the book, occupying only thirty-three pages and covering some 1600 years of history.

The discussion of the main theme begins with Chapter V, "The Rise of the Golden Age." It is devoted largely to the vexed question of the Thutmosid succession, for which the authors adopt the explanation so brilliantly expounded by Winlock and Edgerton, which they handle with a lucidity that carries conviction. The chapter ends with the emergence of Thutmose III as sole ruler, but before going on to an enumeration of his achievements as an empire builder, the authors digress in Chapter VI for a brief survey called "Western Asia in the Middle of the Second Millennium B.C.," in order the better to set the stage for the conquests of Thutmose and his successors. Chapters VII and VIII deal with these conquests

and with the achievements of his immediate successors, including Amenhotep III. Then, somewhat unconventionally, we come to a series of chapters (IX to XIII) which break into the historical continuity with a group of essays on special aspects of Egyptian life and culture, before resuming the historical narrative in the four concluding chapters.

The reasons for this unusual treatment are made evident in the opening paragraph of Chapter IX, which reads as follows:

"The flowering of the pharaonic empire may be considered to have taken place in approximately the period of the fifteenth century B.C., between the accession of Thutmose III and the death of Amenhotep III. Neither before nor after this time did Egypt ever extend its boundaries so far to the north or south, nor was there such a remarkable condition of prosperity in the land. Within seventy years after the expulsion of the Hyksos, Egypt had developed into a world-power such as the Orient had never before witnessed. This situation, of course, had arisen only after the Egyptian state had passed through a complete transformation and had acquired an authority which was undreamed of in the bureaucracy of the Old and Middle Kingdom."

This is an admirable statement and gives the key to the whole conception of the book. The interpolation of these chapters in this particular place lays emphasis on the period which the authors, quite rightly, wish to set forth as the culminating point in Egyptian civilization.

Chapter IX is devoted to a survey of governmental organization in Egypt during the "Golden Age": the position of the king as a living god, chief priest of the kingdom, and head of the government; the organization of civil government under the vizier; the administrative departments and the military forces. Chapter X deals with the regions with which Egypt came into contact during the Empire: Nubia and Ethiopia, Punt on the Somali coast, Syria-Palestine, Mitanni, and the country of the Hittites. Egypt's relations with these countries are discussed in some detail—her trade with them, her methods of controlling those whom she had subjected, and her diplomatic relations with those too distant or powerful to be brought under direct domination. The next three chapters are of considerably ampler content than their titles would indicate. In Chapter XI the construction and development of "The Egyptian Hieroglyphs" are as well expounded for the non-

technical reader as the reviewer has ever seen them, but the chapter also contains a survey of Egyptian literature—funerary, religious, narrative, and scientific. Chapter XII, entitled "Egyptian Religion," deals not only with the multiplicity of gods who made up the pantheon, but goes on to give an explanation of funerary beliefs, burial customs, and the types of tombs used by the Egyptians. Chapter XIII deals with art and is by far the longest in the book—an admirably complete survey of the subject for the period under discussion. Beginning with a description of the great temple complexes of Luxor and Karnak, the writers move on to the principal mortuary structures of the Theban necropolis and discuss their arrangement and construction. From architecture the chapter passes to an admirably clear explanation of the conventions of representation in relief and painting, and gives a generous selection of pictures to illustrate the variety of subject matter found among the monuments. There follows a section on sculpture in the round, and the chapter concludes with a brief discussion of the more important minor arts—metal work, jewelry, wood, faience, and glass.

Professors Steindorff and Seele evidently regard the episode of Akhnaton and Tell el-Amarna as marking the beginning of the decline in Egypt's greatness. There will, I imagine, be few to dispute this in the political and administrative fields, but many who will object in the realm of art and culture. This reviewer, however great his admiration for some of its masterpieces, believes that our authors' judgment is sound in treating the art of Amarna as a thing apart, and so omitting it from the special chapter on art. Chapter XIV is devoted to this fascinating reign of Amenhotep IV-Akhnaton and deals with it from every aspect—politics, religion, architecture, art, literature, and even some still distinctly controversial questions of the relationships prevailing among the members of the royal circle. Chapter XV brings the eighteenth Dynasty to a close and is devoted in large part to the reign of that minor kinglet Tutankhamon, whose sole claim to fame is the remarkable preservation of his tomb with its astonishing array of showy—and occasionally beautiful—objects of tomb furniture and personal adornment.

Chapter XVI gives an account of the chief events of the nineteenth and twentieth Dynasties, the reigns of the Setis and Ramesses, and shows a picture of the gradual relaxation of

Egypt's imperial power and the setting in of the long period of decline, the continuation of which is briefly sketched in the four pages of the final chapter (XVII).

While of very considerable value to the specialist in Egyptian history, the book is especially suited to the lay reader. Its style is clear and readable, the treatment is simple and lucid, and the excellent illustrations are varied and well selected. One is pleased to find that the list of illustrations gives adequate reference to the sources from which they come. The reviewer feels that similar references for the quotations from Egyptian literature, and perhaps a few others, would have increased the usefulness of the book. Such notes, especially if scattered through the text, can be very distracting, but this difficulty may be largely avoided by grouping them in a special section at the end. Mention should finally be made of the admirable chronological summary, condensed into two pages, and of the useful index at the end of the book.

The late James H. Breasted's *History of Egypt* has been of such wide usefulness, both to the special student and the general reader, despite the fact that research during the past generation has rendered it long since out of date, that the need for such readable and authoritative books requires no demonstration. Professor Steindorff's eminence in his profession is sufficient guarantee on the score of authority, and Professor Seele's fine work as collaborator and translator has done much to make the book thoroughly readable. The present volume, despite its restricted field, will be welcome to a wide public, since it brings a very important part of the larger subject up to date and may, let us hope, be followed by equally satisfactory treatments of other periods of Egyptian history.

DOWS DUNHAM

MUSEUM OF FINE ARTS

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THE LIVING PAST, by *Cyrus H. Gordon*. Pp. 232, Ill. 47, Maps 3. The John Day Company, New York, 1941.

The author says in the Preface that his aim was to write a popular book without relinquishing standards of accuracy. He has not only achieved this aim of a popular book, with rare success, but beyond that he has published some new material and made some good suggestions for the scholar. He has the gift of combining delightful and informative writing and of balancing the descrip-

tion of relics of the past with that of the present life of the Arabs. He has drawn for both from his own experiences and proves himself a keen observer and a master in handling Orientals as, for instance, his story of the "Lions of Ader" shows.

The scholar will profit from the chapters on Glyptic Art, in which he illustrates and interprets a number of seals in the Bagdad Museum; those on the gods and heroes of Ugarit, in which he also mentions briefly two new Amarna letters; those on private and public life in Nuzi; those on military correspondence from the last days of Judah; and those on "A World of Demons and Liliths," in which he deals with Aramaic incantations. Disagreement with the author is possible over trifles only, e.g., Dörpfeld, not Schliemann, recognized the true stratification of Troy. The animal above the humped bull on seal 2 has horns too large to be a calf (cf. *Ur Excavations* I, pl. 31), and the pose can hardly be interpreted as leaping in mid-air; the animal is recumbent and fills the space left by the other motives (cf. the bull on the Entemena vase).

VALENTIN MÜLLER

BRYN MAWR COLLEGE

WHAT MEAN THESE STONES? THE SIGNIFICANCE OF ARCHAEOLOGY FOR BIBLICAL STUDIES, by *Millar Burrows*. Pp. xvi+306, 58 figs., frontis., 2 maps. American Schools of Oriental Research, New Haven, 1941. \$2.50.

For more than a century excavations in Bible lands have been remarkably fruitful. During the last few decades alone, new branches of art, new scripts and languages, and indeed whole civilizations have been recovered from the mounds of the Near East and brought to bear on the Bible. The diversity and abundance of the material, coupled with its recent discovery, make a comprehensive study of it a difficult exercise in critically covering, systematizing and condensing an extensive and quite uneven literature. In the book before us Dr. Millar Burrows, Professor at Yale University and President of the American Schools of Oriental Research, has admirably succeeded in this task.

The book lucidly covers the methodology, written sources, topography, chronology, history, architecture, artifacts, arts and crafts, institutions, religion, ethics, etc. To those primarily interested in archaeology in the narrower sense, Chapter IV will be particularly welcome. It deals with the material and secular background of Palestine from Palaeolithic times to the close of the New



Testament age. Houses, public buildings, fortifications; metal and stone tools; pottery, coins, writing, education, science, fine arts and industry are all surveyed historically.

Although there is in the book much stimulating material that deserves special comment, I must limit the discussion here to a few points. The minor criticisms and additions I have to offer should not obscure the fact that I am in hearty agreement with most of what Dr. Burrows has written in this excellent volume.

The generally accepted identification of the Hapiru (*sic!*, not Habiru) of the Mesopotamian cuneiform tablets with the biblical Hebrews (pp. 92, 95 etc.) is phonetically untenable. Aside from the disparity of the *p* (now attested in Ugaritic as well as Egyptian) and *b*, the vowels of Hapiru do not correspond to those of 'ibri "Hebrew."

The use of figs as a poultice in *2 Kings* 20:7 and *Isaiah* 38:21 is not really paralleled in the hippiatric texts from Ugarit (p. 261), where actually the figs (and raisins) are administered internally. The prescription (variant forms of which occur, one in each of the two texts published in *Syria* 1934, pp. 77, 79) calls for compounding an old fig-cake and old raisins in a vehicle of flour and inserting some in the horse's *ap* (probably to be normalized 'appu) "nose." I could not make sense of this until my friend, Mr. John C. Ryan of Hatfield, Massachusetts, informed me that some veterinarians still give liquid vermifuge to horses through the nose. At Ugarit, medicine is regularly administered through the horse's *ap*, perhaps because it is easier to get it into the nose, which the horse cannot close, than into the mouth, which he can.

It is unlikely that El's epithet *ab šnm* means "father of years" in Ugaritic, in spite of the supposed parallels "Everlasting Father" (*Isaiah* 9:5) and "Ancient of Days" (*Daniel* 7:9, 13); see p. 265. The plural of "year" in Ugaritic is *šnt*, not *šnm*.

Dr. Burrows notes the expression "the table of the lord Serapis" in a Greek papyrus as illustrating the contrast between the table of the Lord and the table of the demons in *1 Corinthians* 10:21 (p. 269). The verse reads: "Ye cannot drink both the cup of the Lord and the cup of the demons nor can ye partake of both at the table of the Lord and the table of the demons." The reference to demons prompts me to turn to magical literature for parallels to the cup and table. In lines 8-9 of the cuneiform Aramaic incantation from

Uruk (*Orientalia* 1940, p. 36), the magician exclaims: "The table, tied of tongue, was upset; the cup, mixed with poison, was spilled," whereupon his spell is declared successful. The combination of table, cup and enmity in *Psalms* 23:6 suggests a similar magical notion: "Thou preparest a table before me in the presence of mine enemies; Thou annointest my head with oil; my cup is full." The magical setting of the eating, drinking and anointing is again found in an Aramaic incantation bowl (*Orientalia* 1941, p. 349): "I went up to the roof at night and said to them (the demons and curses): '(If ye are hungry, come,) eat! And if ye are thirsty, come, drink! And if ye are dry, come, be annointed| But if ye are not hungry and not thirsty and not dry, return and go on the road by which ye came and enter the house from which ye came and enter the mouth from which ye came.'" Cf. also *Orientalia* 1941, p. 342 and *Archiv Orientalní* 1934, p. 470, lines 10-11. Professor G. Lévi Della Vida kindly calls my attention to the magical properties of food and drink in the Last Supper (*Matthew* 26:26-29; *Mark* 14:22-24; *Luke* 22:19-20) and to the existence of Arabic magical texts that ought also to be investigated in this connection.

Dr. Burrows is to be congratulated on writing a first-rate book that will be indispensable for those studying the Bible or the archaeology of the ancient Near East.

CYRUS H. GORDON

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REPORTS ON EXCAVATIONS IN CYPRUS, by Erik Sjöqvist. Text volume, pp. x+248, figs. 81; plate volume, pls. XL, plans IV. Stockholm, Swedish Cyprus Expedition, 1940. 1 guinea.

These two volumes contain a reprint of sections dealing with Late Bronze Age sites published by Sjöqvist in *The Swedish Cyprus Expedition*, vol. i. They are designed to accompany the author's *Problems of the Late Cypriote Bronze Age*, reviewed below. They are welcome. Their usefulness would have been complete had they included all the Late Bronze Age sites excavated by the Swedish expedition. Unfortunately, one still needs *SCE*, ii for Idalion and Aghia Irini and Westholm's article in *QDAP*, viii for Milia.

With a gain in compactness this book shares the merits of the parent volume. The Swedish expedition was the first in Cyprus to mention all, and illustrate most, of its finds, and to furnish detailed



plans, cross-sections and verbal descriptions of the contexts in which the objects were discovered. That Cypriote archaeology is now on a firm footing is due in large part to the careful excavation and scrupulous publication of this expedition.

It is unfortunate that advantage was not taken of the opportunity to improve on the arrangement of the parent volume. The correlation of text and illustrations is still inexcusably poor, and the verbal descriptions of the objects, in spite of seeming detail, are often merely repetitious in insignificant matters, while lacking information of importance. This and the parent volume are so difficult to use that only the specialist is likely to make the attempt. The evidence, however, is there, awaiting those who have the patience and ingenuity to uncover it. And no one can claim to do serious work in Cypriote archaeology unless he has excavated extensively in the Swedish publications.

JOHN FRANKLIN DANIEL

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PROBLEMS OF THE LATE CYPRIOTE BRONZE AGE, by Erik Sjöqvist, Stockholm, The Swedish Cyprus Expedition, 1940. Pp. xi + 226, figs. in text 29. 1 guinea.

The importance of the excavations conducted by the Swedish Cyprus Expedition is too well known to merit discussion at this point. The results of these excavations are being published in a series of four large volumes. The three which have appeared present the material results of the excavations, stripped as far as possible of interpretation; general discussion and conclusions are reserved for the fourth volume, which will presumably have to wait until after the war.

Our desire for conclusions has been partly satisfied by a number of articles and monographs in which various members of the expedition have discussed specific questions. Sjöqvist's new volume is the most important of these. The book emphasizes the results of the Swedish Cyprus Expedition, but judicious use is made of Schaeffer's work at Enkomi, of that of the University Museum at Kourion, and to a lesser extent of earlier work on the island. Particular attention is paid to the architecture, the tombs, and of course the pottery. For the bronzes, ivories, seals, and the like, one is referred to *SCE*. iv. It is unfortunate that these could not have been included in the present volume, for they have a direct bearing

on many of the problems discussed. The treatment of the pottery is admirable as far as it goes, but the vases in the Metropolitan Museum, in the British Museum, and some other important collections are not considered. These omissions naturally detract from the finality of the conclusions.

The preliminary work for this book was done during the last years prior to the war, when it was still possible to travel and study abroad. Sjöqvist's mastery of the comparative material throughout the Near East shows that he made excellent use of his opportunities. War broke out, however, before the book was completed, and Sjöqvist was in uniform when it went to press. In view of this, it is hardly surprising that the book is somewhat uneven. The ground work is excellent, but some of the conclusions are less well thought out and occasionally even inconsistent. The wonder, however, is not that there are some rough spots, but rather that there are not many more.

In such circumstances, any comment other than well earned praise for the best parts of what is by and large an outstanding book is bound to be unfair to the author. Since, however, *Problems of the Late Cypriote Bronze Age* will probably become the standard work on the subject, an attempt must be made to discuss it objectively. In what follows, questionable matters are discussed at some length; the great bulk of the book, which is admirable, is passed over in silence, save for the present blanket commendation.

The technical descriptions of the pottery are excellent, save for the frequent misuse of the term "slip." Strictly speaking, a slip is a secondary coating of clay, with or without added coloring matter, which was usually applied by dipping. Sjöqvist, however, uses the term to describe the L.H. III ware and the painted pottery of the L.C. III period, which have no added coating of any sort. A difference in surface texture is sometimes caused by wet-smoothing; a difference in color is due to the different firing of the surface and core. The term "slip" is also used to describe a solid coating of paint, applied with a brush. This is better called a wash. In *AJA*. xlv, 1941, p. 271, n. 52, I have suggested the name "Wash ware" for what Sjöqvist calls the Red and Black Slip Wheel-made wares.

The classification of the pottery is sometimes arbitrary. A chronological classification should be the product of the co-ordination of a number of

stratified deposits, the sequence of these determining the chronological place of the objects they contain. Such a classification should be constantly reconsidered in the light of new evidence. Sjöqvist's classifications are not flexible, but on occasion serve as a Protean bed on which the unfortunate strata are wrenched into conformity with a preconceived system. A case in point is the vase classified as Base Ring II, jug 1a. No example of this type has been recorded in a pure Base Ring II context. Most are from mixed deposits which contain both Base Ring I and II wares, and thus furnish no direct evidence. One piece, however, was found in Enkomi tomb 8, which contained nothing later than the L.C. IA period. Rather than treat this tomb as decisive for the date of the vase type, Sjöqvist clings to the preconceived idea that jugs of this type must be late, and misdates the tomb to the L.C. IB period.

The "Base Ring II" jug 1b and the bowl 1a and probably 1b should also be assigned to Base Ring I, for similar reasons.

The converse is true of the tankard (jug 3) and the krater which are labelled White Slip I. Neither type has been reported in a consistently White Slip I context, but they were found in clear L.C. II deposits in the sanctuary at Aghios Jakovos and in tomb 2 at Enkomi. They agree in both style and technique with other vases of the White Slip II class. In spite of this, Sjöqvist writes (p. 47) that "other shapes than bowls are altogether missing" from White Slip II, and classifies these as White Slip I.

The bulk of the evidence cited by Sjöqvist comes from chamber tombs opened by the Swedish Cyprus Expedition. These were carefully excavated and meticulously recorded. In spite of the greatest care, the chamber tomb, with its multiple burials, remains treacherous. It is particularly so at Enkomi, where water often seeps into the tombs and causes the vases to float around. Enkomi is also one of the most thoroughly plundered sites on the island. Sjöqvist is generally cautious when dealing with disturbed tombs, but occasionally places undue reliance on a dubious deposit. An example of this is tomb 17 at Enkomi, where the attribution of certain objects to a top burial seems arbitrary. I can see no stratigraphic or stylistic reason for separating these objects from those of period 2, correctly dated to the beginning of the Late Cypriote II period. Furumark misdates the magnificent L.H. III krater (see *AJA*, xlv, 1942, p. 121).

There is a tendency throughout the publications of the Swedish Cyprus Expedition to group several interments into one "burial period," and to assign a single date to this, even when numerous skeletons and objects of obviously different stylistic stages imply burials covering a considerable range of time. A case in point is the disturbed tomb 3 at Enkomi, which is divided on purely stylistic grounds into two groups. The first includes a large number of vases of the L.C. IA period, but is called L.C. IIA; the second, with L.H. III kraters which cover the entire fourteenth century, is placed in the early L.C. IIB period. The tomb contained at least fifteen skeletons, and objects which run without a break from the L.C. IA to the L.C. IIB period; the attempt to group them into a few static periods is arbitrary and misleading.

Somewhat comparable is the case of Myres' tomb 4 at Laxia Tou Riou, which contained one Base Ring I juglet and a group of developed L.C. IIB objects. Sjöqvist (p. 118) states that although the tomb is of the L.C. IIB period, the presence of the Base Ring I jug confirms a date early in that period. But Base Ring I ware ceased to be made long before the beginning of the L.C. IIB period. Either the jug was left from a previous burial, or else it was placed in the tomb as an antique. In neither case has it any bearing on the date of the L.C. IIB objects.

In discussing the relative chronology, Sjöqvist publishes "frequency tables," designed to show at a glance the relative quantities of the several wares in the different periods. These are very useful. The percentage of a certain ware often gives an indication of the date of a deposit. It does not always, however, constitute proof of date, and Sjöqvist errs in assigning the third level of tomb 11 at Enkomi to the L.C. IIC period simply because it contains a large number of Mycenaean vases. The individual pots, both Mycenaean and Cypriote, are admittedly identical in style with those of other tombs assigned to the L.C. IIB period, and differ sharply from those of a clear L.C. IIC tomb, such as Enkomi 18. The large number of Mycenaean vases is probably to be explained by wealth or personal choice; as a chronological criterion it does not outweigh the style of the specific pieces.

Sjöqvist (p. 132 f.) uses the frequency principle in criticizing my differentiation of L.C. IIIA and B, and my chronological equation of "level 2" at Bamboula with tombs 25 and 26A of the

Kaloriziki necropolis. Fundamentally, his position is that two fragmentary vases from the settlement do not suffice to establish a temporal equation with the tombs, although the pieces from the settlement belong to the same advanced stylistic stage as those from the tombs; the difference between the tombs and the settlement in the proportions of the plain ware and of the painted ware of L.C. IIIA type excludes a chronological equation. The form, at least, of Sjöqvist's argument might have been different if he had had access to a fuller account than my necessarily brief preliminary report, or if the study of the ceramic material had been further advanced when he visited the Kourion excavations. In any case, his argument repudiates one of the most respected of archaeological principles, namely that a deposit is dated by the latest object it contains.

In spite of more recent discoveries (cf. *Bulletin of the University Museum* 8:1, Jan. 1940, p. 8 f. and pl. III:b), the primary evidence is still that of the region excavated in 1937 and 1938 (*AJA.* xlii, 1938, p. 263, fig. 2, left). Here we found three houses which were strictly contemporary during "level 2." In one house (rooms 14, 15, 17, 20, 26), all the pottery *in situ* was of the usual L.C. IIIA types, but three Submycenaean sherds were found in the debris of the walls, and others were found under the fallen east wall of the house, in the street. Submycenaean painted pottery was also lacking from the floor deposits of the house comprising rooms 5, 9, 1, 4, and 3. Two of the plain vases which were standing on the floor when the house collapsed imitated Submycenaean shapes. A Submycenaean bichrome sherd was found under the paving of room 1, in a place where there was no possibility of intrusion, and there were seven such sherds in the debris of the walls. A third house, comprising rooms 10, 8, 12, 19, and 18, though strictly contemporary with the other two, presents a very different picture. The four vases which were found more or less complete were all of the Submycenaean style. Those stratigraphically early resemble those from tomb 26A; those from the end of "level 2" are close to vases from tomb 25; an amphoriskos may well be by the same hand as *AJA.* xli, 1937, pl. IV, 63. The accumulation on the floor contained 42 Submycenaean sherds and one of the contemporary "Ware VII" (*i.e.*, pp. 72 ff.), as against 16 sherds of L.C. IIIA painted ware and one of wheel-made Bucchero.<sup>1</sup>

<sup>1</sup> The report of hand-made Bucchero in "level 2" in my provisional report was due to the misin-

Only one conclusion seems possible: that the Submycenaean ware was available when these houses were built, and that it was produced side by side with the generically older L.C. IIIA ware throughout the period of "level 2," as well as during the brief succeeding "levels 3 and 4." It had a definite effect upon the shapes of the plain ware. The choice of the new type or the old was, as always, determined by personal taste. The inhabitants of two of our houses preferred the conservative ware, though that did not protect them from the presence of new-fangled sherds in the earth of which their houses were built, nor from new shapes in their kitchen ware. The inhabitants of the third house, whether because they were more "progressive," or because they were actually newcomers from Greece, used exclusively the new style of pottery.

"Level 2" at Bamboula is therefore contemporary with the Kaloriziki tombs, and later than levels 2 and 3 at Idalion. Rather than adopt Sjöqvist's term, L.C. IIIB, for the upper strata at Idalion, I would call all three levels L.C. IIIA, and reserve L.C. IIIB for the period characterized by "levels 2-4" at Bamboula. Sjöqvist's distinction between the two periods is based on the fact that there was a rebuilding at Idalion after level 1, although he admits that there was no real change in either ceramic types or historical conditions. If a new period were to be invented every time a new house were built, the results would be chaotic; such changes in terminology are useful only when they correspond with changes in conditions. The first such change after the beginning of the L.C. III period is that characterized by the appearance of the Submycenaean ware and the Achaean refugees who were responsible for its introduction, in "level 2" at Bamboula. This, then, should be called L.C. IIIB. A Bronze Age nomenclature is justified by the fact that the ethnic movement and the cultural traditions involved are those of the Bronze Age inhabitants of Greece and Cyprus. That the L.C. IIIB period looks not only backward but also forward to the full Cypriote Iron Age does not invalidate this terminology. If it did, L.C. IIIA would also have to be rejected; iron was found in all three levels at Idalion, as well as in "level 1" at Bamboula. Strictly speaking we are in the transitional period between the Bronze and the Iron Ages.

Sjöqvist compares the Kaloriziki tombs with interpretation of a reflooring of "level 1;" no such ware was found in "level 2" or its successors.

tombs 417 and 420 at Lapithos as authority for calling the former Cypro-Geometric I. Lapithos tomb 420 is perhaps still L.C. IIIB, but several points indicate that it is later than the Kaloriziki tombs 25 or 26A. The Bucchero jugs of the Lapithos tomb are of the usual geometric type, whereas those of the Kaloriziki tombs, Sjöqvist notwithstanding, have a plain mouth, which is usual in the preceding period. The Bucchero amphora and the developed panel style of the stemmed two-handled bowls of the Lapithos tomb recall those of Kaloriziki tomb 26B (*AJA*, xli, 1937, pl. III, 95, 97, 100), which I would still place at the dawn of the geometric period. Lapithos tomb 417 is still later, and belongs early in the geometric period. Late signs are the further development of the panel style, with the characteristic quartered lozenge, the passing of the amphoriskos, and the presence of the large flat plate typical of the geometric style. Sjöqvist's date of 1075 B.C. is satisfactory for Lapithos 417; Lapithos tomb 420 must be somewhat earlier. Kaloriziki tomb 25 belongs not far from 1100 B.C., and 26A somewhere in the second half, perhaps the third quarter, of the 12th century. "Level 2" at Bamboula runs from about 1150 to about 1100 B.C.

There is much in the discussion of the so-called "Levanto-Helladic" ware to which the reviewer takes exception, but since this section of the book is based on a work by Furumark which the reviewer has not seen, criticism is difficult and of doubtful pertinence to Sjöqvist's work. Since, however, the Mycenaean pottery is of vital importance for the study of the Late Bronze Age in Cyprus, a few remarks are necessary, even at the risk of doing an injustice to Furumark.

The reviewer feels that the whole question has been confused by over-simplification. "Levanto-Helladic" is an omnibus term which covers at least three different classes of pottery. First and most important comes a group which comprises most of the vases of the L.C. IIA and B periods, and many of the L.C. IIC period. The vases of this group differ in no tangible way from those common in Greece proper. The second group consists of vases, chiefly of the L.C. IIB and C periods, which resemble the above in fabric and style, but are not identical with it. This group contains shapes which are not found in the West, or which are treated differently in the two regions. Typical are the large shallow plates, with or without pedestal foot. The third group, of the L.C. IIC and L.C. III periods, consists of vases of a different fab-

ric, greatly inferior to that of the first two groups. These are, for the most part, late native imitations of the vases of the first two groups; they belong with the painted wares of the L.C. IIIA period. Few will deny that the second and third groups are of non-Helladic manufacture. Their inclusion with the first group merely confuses the issues concerning it. In what follows I refer only to the group which might represent importations from the West.

Sjöqvist accepts Casson's opinion that it would be perfectly possible for Cypriote potters to reproduce exactly the Helladic fabric. Accepting this for the sake of argument, one wonders why this superior technique was not adapted to types other than the Mycenaean. There is not a single example of a native Cypriote shape with Cypriote decoration which bears the slightest technical resemblance to the L.H. III pottery of the Greek mainland. The few native shapes which do occur in this technique are modified and decorated in the Helladic rather than the Cypriote manner, and might thus have been made in Greece for a Cypriote order. One may ask further why the Cypriote potters lost this hypothetical ability to reproduce the Mycenaean fabric overnight, thenceforth producing only the inferior imitations of the third class above. And why is it that this abrupt change coincides exactly with the cessation of Mycenaean exportation to Egypt and the Levant, in the second half of the 13th century? These questions are hard to answer.

Sjöqvist admits the absolute identity of the bulk of the Mycenaean vases found in Cyprus with those of the Greek mainland. He explains this phenomenon by saying that when the Helladic style was introduced from Greece it found in the East a predominantly monochrome style (how about the White Slip and Wheel-made Bichrome wares?), so that there was no local decorative tradition to adulterate the Mycenaean types. Such a condition, if existent, might conceivably explain an initial similarity or even the unaltered continuation of the types originally introduced, but it cannot account for a parallel development during nearly two centuries, with the faithful reflection in the East of even the most minute innovations of the homeland. That large numbers of vases could have been made and exported from a single center is shown by Protocorinthian pottery of a later age. The L.H. III period was no more primitive than the seventh century B.C.



Several of the arguments for independent eastern production backfire. Evidence of local manufacture is seen in the fact that fewer shapes are represented in Cyprus than in the West, Cyprus and the East generally showing a marked preference for the false-necked jar, the three-handled jar, and the krater. There is a corresponding scarcity of the deep bowl and the stemmed goblet. The false-necked and three-handled jars are ideally suited to the shipping of liquids. If the vases were exported at least in part for the sake of their contents, these are exactly the shapes which one would expect to find predominant in the importing regions. The scarcity of the stemmed goblet in the East is explained by its fragility; it was a poor risk for an exporter. The great popularity in Cyprus of the kraters with pictorial representations is due in part to the wealth of the island at that time, in part to personal preference. Gjerstad (*Studies*, p. 219 f.) has shown that this is not inconsistent with Helladic manufacture. The presence on the Greek mainland of a considerable number of rare shapes which are not found in the East strongly indicates that the mainland was the home of the ware. Some of these vases were probably made in small quantities in answer to specific needs, and others may be the result of experiments which were not considered satisfactory. The failure to put these types into mass production made them unsuitable for the export trade, which depended upon a sustained demand for more or less fixed types.

Furumark is quoted as distinguishing between a Hellado-Mycenaean and a Levanto-Helladic style among the vases with pictorial representations. Vases found in Greece, but stylistically similar to those common in Cyprus, are called Levanto-Helladic and regarded as importations to Greece from the East. Furumark notes that most of the Hellado-Mycenaean pictorial vases are later than the Levanto-Helladic vases of Cyprus; in fact, he says that of the known pictorial vases and sherds from the Greek mainland, only two of the Hellado-Mycenaean style are contemporary with those of the Levanto-Helladic style. Now I have a list of fifty-five vases and sherds from the Greek mainland which are contemporary with those from Cyprus. If this material was known to Furumark we can only conclude that he considers fifty-three of these Levanto-Helladic imports, and only two local Hellado-Mycenaean. The facts behind Furumark's argument do not impose this conclusion, and may perhaps be con-

sidered in another light. If all but two of the pictorial pieces found in Greece come from the same manufacturing center as their eastern counterparts, it is difficult to avoid the conclusion that the manufacturing center was in Greece. The technique is at home in Greece; the details of the style agree exactly with those of the non-pictorial vases of Greece; and the inspiration of many, if not most, of the scenes is found in the frescoes of the Mycenaean palaces.

Sjöqvist's final chapter contains a careful statement of the historical rôle of Cyprus in the Late Bronze Age, on the basis of the new archaeological evidence and Greek, Hittite, and Egyptian literary records and tradition.

Evidence is presented to show that the Late Bronze Age began during a brief period of Hyksos domination of certain key sites in the eastern part of the island. Hyksos power was soon broken, but the "Hyksos" peoples remained and became assimilated with the native population. Sjövqvist suggests that this racial element may have given to eastern Cyprus the peculiar characteristics which were to distinguish it from the rest of the island for centuries to come. The difference is perhaps not so simple as this, but the "Hyksos" may well have had a part in it.

In the fourteenth century B.C. Cyprus came within the sphere of an expanding Mycenae. The parts of Sjövqvist's book which deal with this phase of the history of Cyprus make interesting and often provocative reading. They differ in important aspects from what one had come to consider the official opinion of the Swedish Cyprus Expedition. Gjerstad (*Studies*, pp. 326 ff.) maintained that all the Mycenaean pottery of the fourteenth and thirteenth centuries in Cyprus was imported from Greece, and deduced, curiously enough, that there were no Mycenaeans in the island at that time. The Achaeans, he said, made their first appearance in the twelfth century, together with the Submycenaean style of pottery (that called L.C. IIIB by me, Cypro-Geometric I by Sjövqvist), coincident with the Dorian invasion of Greece. Gjerstad has since modified his views concerning the Mycenaean pottery, and Sjövqvist has reinterpreted the Submycenaean ware, but until the appearance of this book all members of the expedition continued to defend the historical conclusions of Gjerstad's pioneer work.

Sjöqvist now admits the presence of what he calls Mycenaean "emporium" at Enkomi and elsewhere in the Near East in the fourteenth and thir-



teenth centuries. By "emporia" he means "isolated bodies of Mycenaean settlers" (p. 183). "They played a prominent part in the commercial world; they brought with them their own culture, and they were protected by the strong political position of their native country" (p. 184). Their political importance is clear in the following (p. 201 f.): "The Mycenaean emporia in Ugarit and Enkomi . . . were for their existence dependent upon peaceable and continuous political development. . . . The great Mycenaean power could not have been an indifferent onlooker when its pioneers in the East were threatened with ruin. . . . This may . . . have been a weighty reason for the restraint, practiced in Hittite politics towards Ugarit and eastern Cyprus."

This statement apparently brings to a close the long-standing argument of the author and the reviewer as to whether there were Mycenaean colonists in Cyprus in the fourteenth and thirteenth centuries B.C. Although Sjöqvist still shuns the use of the word "colony," the conditions which he assumes for the "emporia" are the same as those which the reviewer understands when he speaks of a "colony." Perhaps we can still argue about terminology; the question of underlying facts seems solved. I might only remark that the use of the English word "colony" does not necessarily imply, as Sjöqvist seems to think, the complete numerical and cultural ascendancy of the colonizing people.

Sjöqvist emphasizes the belief that the basic racial stock of Cyprus in the late Bronze Age was Anatolian. This appears probable for the regions considered, although some of Sjöqvist's arguments are of dubious value. The occasional statement that there were no Greeks on the island overlooks the "emporia," thereby suggesting the possibility that these were not accepted until a relatively late date in the composition of the book. The line in the *Odyssey* which says that a foreign language was spoken at Temese (presumably Tamassos) does not prove that no Greek was spoken in Cyprus in the twelfth century. It is by no means certain that the line in question dates from the twelfth century; whatever its date, it is irrelevant, for a foreign language was spoken in Tamassos even after the Greek settlement of Cyprus: Tamassos was Phoenician in Classical times.

Fürst's careful study of the cranial material from Enkomi and Aghios Jakovos proves that there were at least a few score people of Anatolian race at those sites, but it does not prove that there

were no Mycenaeans in Cyprus (the emporia are again forgotten!). Fürst's warning as to the inadequacy of the available material should have been heeded. New skeletal material from Kourion seems to tell a different story.

Further evidence for an Anatolian population in Cyprus is seen in some inscriptions on vases which Persson interprets as stem-forms of personal names (*SCE*, iii, pp. 601-618). Many of these names, however, result from the arbitrary compounding of isolated characters incised on different parts of a vase, which could be juggled with equal validity into non-Anatolian names. The reviewer differs with Persson as to the interpretation of some of the signs (*AJA*, xlv, 1941, pp. 249-282, especially 279 ff.). The inscriptions on the "Plain White Wheel-made Ware" must now be regarded as native Cypriote (Sjöqvist, p. 88 f.); the characters on the Mycenaean vases, on the other hand, do not correspond with those on the Cypriote ware, and must therefore be considered foreign (*AJA*, xlv, especially pp. 264-267). Persson (l.c., pp. 614, 616 f.) notices the difference between the scripts, but reverses their geographical attribution because of the then prevailing misconception as to the place of manufacture of the wares concerned.

Despite the above details in his arguments, Sjöqvist is probably essentially correct in his main contention, that the predominant ethnic strain, in eastern Cyprus at least, had Anatolian affinities.

Shortly before the end of the thirteenth century, contact with Mycenae came to an end, and life at the sites investigated underwent a radical change. The chamber tomb of the previous period was replaced by the simple shaft grave, and the number and richness of the burial offerings declined. A fortified settlement was founded at Idalion. Sjöqvist believes that the change was due to a hostile invasion of Cyprus, which destroyed the foreign trade and the attendant prosperity of the preceding period. "It is beyond doubt that Cyprus was swept into the whirlpool of the great migrations" (p. 208). This is extremely probable so far as eastern Cyprus is concerned, but it is not true of the entire island. Kourion shows no sign of a political upheaval or a fundamental change in the manner of life at this time, although the pottery types include those known at Idalion and Enkomi. The settlement was not destroyed, but several houses remained in use from the L.C. II well into the L.C. III period. The circuit wall was built prior to the cessation of relations with Mycenae, and there was no sign of warfare in its

vicinity. There was no change in the burial customs: no shaft graves have been found at Kourion, but chamber tombs of the old type continued to be built. This is not negative evidence: Kourion is by far the most extensive site of the period yet excavated in Cyprus. The results at this site are confirmed by Miss Joan du Platt-Taylor's excavations at Apliki (*ILN*. Feb. 24, 1940, p. 251).

To return to the newcomers in eastern Cyprus: "These people can certainly not have been pure Achaeans. The fortifications, the type of tombs and the evidence from the history of religion contradict such a hypothesis, and point to Anatolia." "The 'Submycenaean' pottery shows that the newcomers must have harboured amongst them Achaean elements, and the foundation legends testify to the fact that their leaders were Achaeans." "The scattered Achaeans, who, in small bodies, had been resident on Anatolian soil for a century or more, headed the tribes of . . . Anatolians, . . . raided Cyprus and gradually settled in the newly established petty principalities. Some of the legendary founders of these 'kingdoms' are in the later versions referred to as heroes returning from the Trojan war, and this may give a hint as to what part of the world they come from" (p. 208).

The raiders probably did reach Cyprus from southwestern Anatolia, but it is by no means certain that this was their ultimate source. Sjöqvist's arguments for their Achaean leadership are most unsatisfactory. The "Painted Submycenaean Ware", illustrated on p. 67, proves the presence of neither Anatolians nor Achaean princelings. The bowls, types 1 and 2, are immediate descendants of the ubiquitous "Levanto-Helladic" bowls of the preceding period. The jug, type 1a-b, belongs unmistakably to an old Cypriote tradition (cf. for both shape and decoration *SCE*. i, pl. CIX. 7). The only type which may be new at this time is the jug with tubular spout and basket handle (jug, type 2), but it is difficult to believe that the only type of vase introduced by the Achaean freebooters and their motley crew would be a baby's feeding bottle. The fact that such bottles are not known in the region from which the invaders are supposed to have come, does not add to the probability of this theory. Now this shape, with both systems of decoration shown by Sjöqvist, is common in Greece from the beginning of the L.H. IIIA through the L.H. IIIB period, and occurs occasionally in the L.H. IIIC period. In spite of our present lack of evidence, it is ex-

tremely probable that this was one of the many L.H. III types imported to Cyprus during the L.C. II period, and that the L.C. III examples merely imitate these.

Sjöqvist has even less justification for associating the raids of the L.C. IIIA period with the foundation of the Greek kingdoms of Cyprus, or for assuming that the traditional association of these foundations with heroes of the Trojan war in any way reflects an Anatolian origin. By Sjöqvist's own admission (p. 195) the break in the L.C. II culture, which was caused by the arrival of the invaders, occurred about 1230 B.C. This is by almost any calculation several decades before the Trojan war. Purely archaeological evidence shows that the Mycenaean types reflected in the L.C. IIIA period are definitely earlier than those of the "Granary Class" characteristic of Troy VII A.

The Greek tradition, which is not quite so bad as Sjöqvist seems to think, speaks unequivocally of a series of independent expeditions setting out from Greece during the years between the Trojan War and the Dorian conquest of Greece. Before rejecting this in favor of Sjöqvist's hypothesis, one should look to see if the unmaugled tradition can be reconciled with known archaeological facts. All the necessary conditions are fulfilled by the innovations of what I call the L.C. IIIB period. Strong Achaean influence at this time is shown by the introduction of the Mycenaean chamber tomb and by a new influx of Mycenaean ceramic types. The new ceramic introductions reflect the Late Mycenaean ware which Wace has called the "Granary Class" and its fellows (*AJA*. xli, 1937, p. 80 f.). This ware was coming into use at the time of the Trojan War, and reached its acme in the years immediately preceding the fall of Mycenae (*AJA*. xlv, 1940, pp. 554 ff.). A late survival of this, which post-dates the fall of Mycenae and is generally called "Submycenaean" is reflected in some of the later L.C. IIIB deposits in Cyprus. In addition to the Cypriote imitation of vases of the "Granary Class," two imported pieces of this ware were found in an early L.C. IIIB tomb at Kourion. It seems obvious that this archaeological evidence is to be brought into direct connection with the Greek tradition. Sjöqvist's misdating and misinterpretation of the L.C. IIIB material cause him to miss its true historical implication, and to saddle the Greek tradition on another movement with which it has absolutely no connection.

Far from marking the arrival of Greek princelings, the L.C. IIIA invasion did much to break the continuity of the Mycenaean cultural tradition in eastern Cyprus. At Kourion, which was not touched by the invasion, the Mycenaean tradition managed to survive the L.C. IIIA period, and the arrival of the new Achaean colonists in the L.C. IIIB period did not occasion another political break. It is perhaps because of the antiquity of the Greek element at Kourion that the colonization of this kingdom, alone among the major states of Cyprus, was attributed not to a Homeric hero, but merely to "Argives."

It may be thought that this review bears so heavily on some parts of the book that little remains unchallenged. This is far from being the case: a less important work would not have demanded such a thorough scrutiny. Sjöqvist has collected a large amount of important material and presented it in handy form. The technical descriptions are excellent, the drawings are admirable, and the index is a model of its kind. Even if some of the conclusions are open to controversy, *Problems of the Late Cypriote Bronze Age* will long remain indispensable for the study of this important phase in the history of the Near East.

JOHN FRANKLIN DANIEL

THE UNIVERSITY MUSEUM

UNIVERSITY OF PENNSYLVANIA

LARISA AM HERMOS. Die Ergebnisse der Ausgrabungen 1902-1934, Vol. II. Die architektonischen Terrakotten, by Lennart Kjellberg, J. Bochlau, K. O. Dalman, K. Schefold, E. Kjellberg, Å. Åkerström. Im Auftrage der Vitterhets Historie och Antikvitets Akademien in Stockholm herausgegeben von Åke Åkerström. In two parts: 173 pp. of text and 72 plates (some colored). 45 Kr.

This long title page sums up the history of the excavations at Larisa in Asia Minor—their inception in 1902 by Lennart Kjellberg and Johannes Bochlau, their continuation in 1932 by K. O. Dalman and K. Schefold, the prolonged study of the material, and now at long last the publication of the results. The threatened and then actual blindness of L. Kjellberg, the successive deaths of K. O. Dalman, L. Kjellberg and Ernst Kjellberg who had undertaken to finish his father's work, explain the long delay. Since the book appeared the death also of J. Bochlau has been announced.

The present volume on the architectural terracottas is the first of three to appear. The two others

will deal with the buildings and the small finds. Åkerström explains his share of the work in a foreword. When, after Ernst Kjellberg's death, the manuscripts were handed over to him, much of the text was written, but it had to be edited and the illustrations selected and arranged. He has acquitted himself well of this difficult task and has produced a clear, sober, and well-arranged book. The wealth of illustrations, which include restored drawings by Gilliéron senior, are particularly welcome, for the material is of great importance. L. Kjellberg's claim that they represent the most valuable discovery of its kind in Greek Asia Minor is justified. Anyone who has had the good fortune to see some of the originals either in Istanbul or Stockholm will never forget these gaily colored, finely modelled terracotta figures, full of action and movement. They bring before us in eloquent manner the art and life of Ionia before and during the Persian conquest.

The terracottas consist of about 500 fragments of simas, friezes, pediments, and akroteria (including disk akroteria). They were found in fills of later structures, so that it was not possible to assign them to specific buildings, but stylistically the earliest can be attributed to the seventh century, the large majority to the sixth. None are later than the early fifth century. Evidently there must have been a general catastrophe about that time. It is probable, therefore, as the authors point out, that the destruction of the various buildings was due to the Persian victory after the Ionian revolt.

The most important of the architectural terracottas are the figured friezes. They represent men hunting in their chariots, heraldic groups of horsemen, Herakles fighting the Centaurs, chariot races, symposia, and gorgoneia. The slabs were made in moulds, so there were many repeats, but retouching before firing and changes in the color scheme provided variety. They have been assigned to ten friezes and divided into three chronological groups—early archaic (seventh century and 600-560 B.C.), middle archaic (560-540 B.C.) and late archaic (540-500 B.C.). The many problems connected with their style, technique, and interpretation are ably discussed. The intricate evidence is clearly presented and common-sense inferences are drawn. A wealth of incidental information on such subjects as chariots, griffin protomes, dogs, etc. is given, and substantiated in the footnotes.

To judge by this copious material from Larisa, which is supplemented by discoveries on other sites

in Asia Minor, for instance at Neandria, Pergamon, and Sardes, Aeolia and Ionia played a leading part in the production of terracotta figured friezes. The authors' theory seems reasonable that it was from Asia Minor rather than Greece proper—where the finds of this nature have been relatively few—that Etruria and Southern Italy derived this art. Åkerström points out that, when the friezes were first found in 1902, archaeologists favored the theory of Ionian as against Dorian priority in Greek art, but that subsequently there has been a change in favor of Crete and the Peloponnese. However, recent research and especially the discoveries at Samos have once again shown the importance of Ionia in the early Greek world. The terms *Panionismus* and *Pankretismus* do not give us an accurate picture. More and more we sense that the early development of art in Greece was not restricted to a single locality, but was due to a multiple, wide-spread effort.

For this and many other questions the terracottas from Larisa will provide new, valuable evidence. Every archaeologist and lover of art will be indebted to our Swedish colleagues for their important contribution.

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METROPOLITAN MUSEUM OF ART  
NEW YORK

THE LION MONUMENT AT AMPHIPOLIS, by *Oscar Broneer*. American School of Classical Studies at Athens. Harvard University Press, 1941. \$2.50.

This beautiful little volume brings to mind many thoughts. It deals with a monument erected at Amphipolis by an unknown artist, at an unknown date, to celebrate an unknown event. The victorious battle or heroic feat which was there celebrated is forgotten; only the work of art which commemorated it survives.

To restore a monument of which only slight parts of the substructure and fragments of the surmounting lion were found—and those scattered hither and yon on an outlying site—was a major undertaking. It has been brought to a successful conclusion by the help and ingenuity of disinterested Philhellenes. The history of the enterprise reads like a romance—a romance of modern scientific methods, of international co-operation, and of American generosity. Mr. Broneer, in his admirable text, recounts the story in its various phases—the accidental discovery of the base of the monument by Greek soldiers during the Balkan war of 1912-1913, the uncovering of the ruins and the

finding of parts of the lion by officers of the British army during the first World War, the preliminary study of the monument by members of the French Archaeological School, the plan to re-assemble the fragments by the engineers of the Monks-Ulen Company, and the actual execution of the plan by the potent help of the United States Minister to Greece, the Honorable Lincoln MacVeagh.

The detailed study which the project entailed was undertaken first by the archaeologists of the French School in Athens, then jointly by members of the French and American Schools. The French School was represented by Jacques Roger, the American by Oscar Broneer. Both are to be congratulated on their painstaking and brilliant work.

Now the monument stands re-erected in Macedonia, on the site of the ancient Amphipolis, within sight of the river Strymon of recent fame. Its total height is more than 30 feet, that of the lion over 17 feet. Of the latter—which was built up in several courses, like a piece of masonry—the most important missing pieces are the top of the head, the lower jaws (of which only one tiny fragment was found), parts of the mane, and all four paws. These missing portions have been restored with the help of similar, contemporary statues, for instance, the lion at Chaironeia and that from the Piraeus in Venice. The base is frankly modern, only a few blocks of the ancient one having been found. As the latter, however, included such salient pieces as part of an engaged column, a reconstruction on paper could be attempted and is shown in the frontispiece. The plan is reminiscent of the mausoleums of Asia Minor, which, Mr. Broneer points out, are unknown on the Greek mainland. And this fact leads the author to advance a theory that the lion commemorated a famous citizen of Amphipolis who died in Asia Minor. A candidate is found in a friend of Alexander the Great, Laomedon, who, according to a recent theory, was buried in the famous "Alexander sarcophagus" at Constantinople. The evidence is admittedly slight, but since an attempt at identification was presumably necessary, here it is. At all events the new theory is more plausible than the former one that the tomb was that of Brasidas, the Spartan general who defeated the Athenians at Amphipolis in 422. For, as Broneer rightly argues, a fifth-century date for the lion is impossible and we know from Thucydides that Brasidas' tomb was in front of the market place of Amphipolis, that is, on the opposite side



of the river from the lion monument. What we must, however, remember is the fact that the historical data known to us, especially of a place like Amphipolis, are few and far between, and the association of the archaeological remains with these few facts is precarious. It is best to confine our knowledge of the occasion on which the Amphipolis lion was erected to the general sentiment expressed in the *Palatine Anthology* vii, 426, which Broneer has aptly quoted at the beginning of his text:

"Tell me, lion, devourer of bulls,  
Whose tomb dost thou figure?  
Who among men was accounted  
Worthy to share in thy prowess?

Not as a meaningless image I stand,  
But an emblem of valor;  
He who lies buried beneath me,  
A lion he was to his foes."

The type of the Amphipolis lion is the familiar, dog-like one, in which the animal sits erect on its haunches, as in the well-known monument at Chaironeia. These fourth-century lions have none of the splendid ferocity of earlier creations, such as the seventh-century tomb monument at Corfu. They resemble a good-natured dog at attention, rather than a feline and majestic beast of prey. But the effect of the monument as a whole cannot be judged by the small reproductions in Broneer's book. The colossal size must render it highly impressive, and incidentally explains the seemingly coarse workmanship. As so few colossal Greek monuments have survived, this new one is a welcome reconstruction and will bring many of us to Macedonia to see it in its original surroundings and proper setting.

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MONUMENTS OF CULTURE AND ART IN THE COLLECTIONS OF THE HERMITAGE, I, by K. V. Trever, *Monuments of Greco-Bactrian Art*. Pp. 178, pls. 50. Academy of Science of U.S.S.R., Moscow-Leningrad, 1940 (in Russian).

This first volume of reproductions and discussions of groups of correlated products of art and industry kept in the Hermitage in Leningrad is devoted to the publication and study of 62 objects which, according to the author, were made either by Greco-Bactrian artists and artisans of the Hellenistic period, or at a later time and partly

outside the confines of the former Bactrian Kingdom, under the influence or as continuation of Bactrian art. Of these 62 objects the large majority are old acquaintances of ours, published and discussed several times previously. Few are *inedita* (nos. 11, 43-45, 49, 55-58, 62). The book contains: a substantial introduction (pp. 1-45) where Miss Trever discusses briefly (after Tarn, but independently from him) our meager evidence on the political, social, economic, religious and especially artistic evolution of Hellenistic Bactria; a detailed description and analysis of the 62 objects (pp. 45-163) reproduced on 50 excellent plates; a copious bibliography (pp. 163-167) and a good index (pp. 167-175).

In this book Miss Trever is doing pioneer work. No general study devoted to Greco-Bactrian art has ever been made. And yet such an art certainly existed, first as a branch of Greek art (best attested by the coins), later, in all probability as one of the versions of Greco-Iranian art, of which there existed several in the Pre-Hellenistic, Hellenistic and Post-Hellenistic times. I mean the various aspects of Greco-Iranian art in South Russia in the Scythian and Post-Scythian times, the art of some western satrapies of the Persian Kingdom, such as Armenia, Pontus, Cappadocia, Commagene, that of the various Iranian satrapies of Alexander's Empire and later of the Seleucid Kingdom and its continuation in all its versions in Bactria and in the Parthian Empire.

Unfortunately, very little archaeological evidence is at our disposal for forming an adequate idea of the development of art in the various sections of the Greco-Iranian world after Alexander. What we know of South Russia in this period is based more on stray finds and chance diggings than on material from systematic excavations. The same is true for Middle Asia. Very few sites which revealed the Hellenistic and early Post-Hellenistic aspect of Middle Asia have been systematically explored. One notable exception is Taxila in North India, another Ku-i-Kwaja in the Seistan. Bactria is not an exception to this rule. The ruins of its capital, in part and for a short time excavated by Foucher, have not yielded any material of the Hellenistic period. We may learn much from the excavations of Hackin in Alexandria-Kapisa. But thus far the ruins have yielded abundant material for Roman times (mostly Indian ivories and Syrian glass, i.e., transit goods) but none for the Hellenistic period.



It is almost exclusively from the stray and casual finds outside Bactria, with the exception of the beautiful series of royal coins (some of them described and analyzed under nos. 28-42) that Miss Trever made her selection of monuments which to her mind reveal the character and the evolution of Greco-Bactrian art. None of these objects was found in Bactria. For many of them the provenance is uncertain; others were found in South Russia, in the Caucasus, in Eastern Russia and Siberia, in Turkestan and Kazakhstan. The attribution of these objects to Bactria is based on their dates (most of them highly hypothetical), on technical and stylistical analyses, made very difficult by scantiness of comparative evidence, and on the interpretation of the figured compositions which appear on some of them. The results are bound to be hypothetical and tentative, suggestions rather than ascertained facts.

And yet we must be thankful to Miss Trever for her courage and for the analysis which she has made, though in most cases rather superficial and unconvincing. Further study will certainly eliminate several objects from her list as non-Bactrian, or not Hellenistic. Some other groups of objects may be brought into the discussion, but an attempt at laying a foundation has been made and we may hope that this foundation will prove solid.

After these preliminary remarks, I may, in order to show the difficulties which faced Miss Trever, discuss the dates and presumable origin of some of the objects illustrated and studied by her.

I may begin by eliminating from her list three objects, the first two of which certainly, and the third most probably, have nothing to do with Bactria and the problem of Bactrian art.

1). The fragment of blue-glazed faience (no. 47, pl. 38, 9), with the representation of a war elephant (formerly in the private collection of Polovtzev) has no relation to Bactria or any place in Middle Asia. It is a sherd of a faience vase, typical of Ptolemaic Egypt. African war elephants are often represented on the figured friezes which adorn them.<sup>1</sup>

<sup>1</sup> I have dealt with this class of faience in my *Social and Economic History of the Hellenistic World*, p. 370 and pl. XLII, 1 and 2. On the war elephants represented on some vases of this class, see P. Bienkowski, *Les Celtes dans les arts mineurs gréco-romains*, 1928, pp. 145 ff.; cf. my *Social and Economic History*, description of pl. LII, 2 (p. 432).

2). The glass cup (no. 62, pl. 50) found near Mozdok in Northern Caucasus belongs to a class of glass known from many specimens, found mostly in South Italian graves. Its place of production was certainly Ptolemaic Egypt and perhaps Ptolemaic Syria.<sup>2</sup> The cup of Mozdok is a welcome addition to the series, which is not very numerous. It is certainly Hellenistic, as is shown by the gold ornaments which are all typically Hellenistic, including the tower-like ornament which puzzles Miss Trever (it is typical on Hellenistic rugs and mosaics).<sup>3</sup> But the cup has nothing to do with Bactria.

3). The silver rhyton with the horse protome (no. 25, pl. 33), found in 1746 in the region of Poltava in South Russia, is a new specimen of a well known class of metal drinking and libation horns which have a long history. This history cannot be repeated here. The nearest parallel to the Poltava rhyton is presented by a similar but much more artistic and elegant silver rhyton, partly gilt, of about 420 B.C., found in Bulgaria in the famous Bashova Mogila, a grave full of exquisite, exactly dated products of Attic artistic industry.<sup>4</sup> This shows that the Bashova rhyton was also in all probability a product of an Attic toreutes; it is thoroughly Greek in conception and workmanship. It appears, therefore, that Attic workshops took over an originally Iranian form of drinking horn and made such rhyta chiefly for export to Thrace and South Russia (I may note that several rhyta of this type found in the Semibratnij Kurgan were products not of Iranian, but of Greek artists; see my *Iranians and Greeks in South Russia*, pl. XII, B and C, whereas, *id.* A, is an Iranian product). In Hellenistic times rhyta with foreparts of animals of both Iranian and Greek style were very popular all over the Hellenistic world and were made in various places.<sup>5</sup> The Poltava rhyton, in my opinion, is a

<sup>2</sup> See my *Social and Economic History of the Hellenistic World*, p. 371 and pls. XLIII and XLIV.

<sup>3</sup> See my *Social and Economic History*, pl. XLVI, 2 and p. 377, fig. 2; cf. pl. LXXIV.

<sup>4</sup> B. D. Filow, *Die Grabhügelnekropole bei Duvanlij in Südbulgarien*, 1934, p. 67, pl. VI and fig. 83; cf. p. 210 and on the general character of Bashova Mogila my *Social and Economic History*, p. 43 and pls. XIII and XIV.

<sup>5</sup> See, for example, the thoroughly Hellenized rhyton with the forepart of a winged griffon, found at Toukh el Qarmous in Egypt (*Social and Economic History*, pl. XLVII, 3). This rhyton was

descendant of the Bashova rhyton. It shows no features which would prove that it was imported into South Russia from Bactria.

After these preliminary remarks, I may present some considerations on the Greco-Iranian material collected and studied by Miss Trever. The uniting link between the apparently heterogeneous mass of various objects gathered by her is their Greco-Iranian character. Some of these objects are products of Greek art, with a very slight Iranian flavor; others, though still Greek, are much more Iranized; and, finally, there are several objects where the Greek element plays a secondary rôle and the Iranian predominates. The first group is easier to date than the two others, but the various objects which form the group are difficult to assign to a certain place of production. The second group presents great difficulties both from the point of view of dating and of connections with a special region. Most difficult is the last, the most Iranian group of the three. I cannot discuss at length all these groups in this review. I may, however, make some remarks on each one of them.

The first, i.e., the almost purely Hellenistic group, contains exquisite products of Greco-Oriental toreutic art. It consists of a pair of silver phalerae with figures of war elephants (nos. 1-2); of a gold cup, in form and decoration very similar to the so-called Megarian bowls (no. 14); of two plates, one of gold, the other of silver (nos. 21 and 22) adorned with peculiar rosettes, and of a beautiful silver cup decorated with figures of horses (no. 18).<sup>5</sup>

Miss Trever regards all these pieces of toreutic art as products of Bactrian artists. I expressed the same opinion years ago, following a suggestion of J. Smirnov.<sup>7</sup> I am now a little less positive. The two phalerae with war elephants (nos. 1 and 2)—Greek in style and composition—are not necessarily Bactrian. The Seleucids used Indian war elephants as much as did the Bactrian Kings. The only detail which suggests Bactrian origin is

probably imported from Syria, but may have been made after a Greco-Iranian original in Egypt.

<sup>6</sup>To these Miss Trever adds the gold bottle decorated with figures of phoenixes (no. 23). The date and connections of this bottle are obscure to me and Miss Trever's analysis of it has not dispersed this obscurity.

<sup>7</sup>"Some new aspects of Iranian Art," *Sem. Kond.* vi, 1933, pp. 170 ff. This paper remained unknown to Miss Trever.

the form of helmet worn by one of the occupants of the tower on the back of the elephant. This form of Makedonian helmet was worn, as we know from coins, by some Bactrian Kings. But the same form of helmet may have been used in Syria also. We know nothing of the equipment of the Seleucid army.<sup>8</sup>

The same Syrian origin may be suggested for the gold cup (no. 14). The bowl in form and decoration is very similar to Megarian bowls made in Syria.<sup>9</sup> I may mention in this connection that Miss Trever, strange to say, not only regards the gold bowl (no. 14) as Bactrian, but suggests an oriental origin for the Megarian bowls—form and decoration—in general. Her chief reason for it, besides general considerations regarding the use of half-spherical bowls in Middle Asia, is the insignificant fact that three sherds of Megarian clay bowls, probably imported, were found at Peshawar.<sup>10</sup>

I may conclude my remarks on the Greek, slightly Iranized objects studied by Miss Trever by drawing the attention of the reader to the most beautiful of them, the silver cup found in 1896 in the region of Perm (no. 18). The figures of three horses in a marshy land which decorate this cup are fine specimens of Greek animal art, comparable as regards spirit, gift of observation, and intention to the famous horses of the Chertomlyk silver amphora made by a Greek, probably at Panticapaeum, for a Scythian customer (my *Iranians and Greeks in South Russia*, pl. XXI, 2 and 3). The cup is assigned by Miss Trever (rightly, I think) to the third century B.C. Its Bactrian origin is not certain. Miss

<sup>8</sup> See my *Social and Economic History*, pp. 540 and 1447; cf. pl. LII, 2, LIII and LV, 1 and W. W. Tarn, *JHS*, lx, 1940, pp. 84 ff. I may use this opportunity to correct a mistake in my description of the war-elephant phalera. It cannot have been used originally as an "emblem." It is too large for it. I may add that the animal embroidered on the rug is a dragon-like hippocamp and not a dragon.

<sup>9</sup> See *Social and Economic History*, p. 1446, note 311 (to ch. IV) and the description of pl. LXI, 3; cf. pl. LX and P. V. C. Baur, *AJA*, xlv, 1941, pp. 229 ff.

<sup>10</sup> Sir John Marshall, *JRAS*, 1909, p. 1060f. and pl. IIIa. There is nothing surprising in finding Megarian bowls at Peshawar if we take into consideration how popular were the Megarian bowls in the Seleucid Empire. See my *Social and Economic History*, p. 1446, note 311.

Trever (p. 37) compares the horses of the cup with the "miniature figures of horses on the reverse of Seleucid coins, chiefly of Antiochus II (261-247 B.C.)." She means apparently the forepart of a grazing horse used as a mint mark in early Seleucid times by the Seleucid mint at Ecbatana.<sup>11</sup> The similarity is indeed striking and the horses represented on the cup are the famous Median horses, the source of supply for the Seleucid cavalry. If so, why not assign the cup to one of the metal workshops of Ecbatana? Here, in all probability, Greek artists of early Seleucid times of the same school as the die-makers of the mint produced silver and gold cups for their Iranian customers and portrayed on them the pets of their customers, the local horses which they saw every day. The miniature horse of the coins is derived from these objects of forceful art. It is hard to suppose that it was the tiny half-figures of the coins which influenced and were copied by Bactrian artists.

Much more strongly Iranized, and that in a peculiar way, are the two fascinating silver phalerae found in 1886 in a barrow-grave near Novouzensk (nos. 3-4). They are decorated with winged eagle-griffons, with unnaturally elongated and stylized bodies forming a circle. These griffons are called by Smirnov and Miss Trever "dragons" and are regarded as related to Chinese "hydrae." The analogy is far-fetched and not convincing. There is no need to recur to Chinese parallels to explain the figures of the curled griffons of the two phalerae. Curled fantastic and real animals filling a circular space and forming a circle are quite common in Scythian and Sarmatian art. In many cases the body of the animal is elongated and treated in a purely conventional way (as a set of curved parallel lines). There is no need to pile up references. I may mention for the earlier period of Scythian art the tail and paws of the Kelermes lioness(?) and for a somewhat later time the curled eagle-griffon of one of the many round bronze disks found in one of the Semibratnij Kurgans; for Sarmatian times, the gold bridle ornament from Western Siberia, showing a curled tiger with an elongated body. If there is interchange of motives in this case between Bactrian and Chinese art it was certainly the Scythian curled animals, in their Bactrian version, which influenced Chinese artists and not vice versa.<sup>12</sup>

<sup>11</sup> E. T. Newell, *The Coinage of the Eastern Seleucid Mints* 1938, pp. 168 ff.

<sup>12</sup> *My Iranians and Greeks*, pl. IX, 1 (Kelermes);

A group in itself, mentioned above as the transitional group, very strongly Iranized in form and decoration, is formed by several peculiar half-spherical silver phalerae, found (mostly in chance excavations) all over the steppes of South Russia and in Bulgaria. I have discussed them in a special paper and have traced their origin to the Bactrian art and country.<sup>13</sup> It was in my opinion the Sacians who brought them to South Russia and Bulgaria. Similar in style and spirit are two silver medallions with busts of goddesses, perhaps emblemata of silver vases, one from Western Siberia, another of unknown provenance (reproduced in my memoir quoted above on pl. XXV). Miss Trever has republished the phalerae which are in the Hermitage (nos. 6-10) and added to them a similar unpublished phalera, found allegedly near Sukhum (Caucasus)—an interesting specimen adorned with the head of Medusa (no. 11). She has also discussed and reproduced the two medallions (no. 12 and 13). Miss Trever has added some valuable remarks

CR. 1877, p. 13, no. IV; E. H. Minns, *Scythians and Greeks*, fig. 115 (line drawing); my *Animal Style*, pl. X, 3 (from a photograph) (Semibratnij); O. M. Dalton, *The Treasure of the Oxus*, no. iii; Minns, *op. cit.*, p. 255, fig. 175; G. Borovka, *Scythian Art*, pl. 55E (Treasure of the Oxus). I. Tolstoi et N. Kondakoff, *Ant. de la Russie mér.*, p. 398, fig. 362 (Western Siberia). E. E. Herzfeld, *Iran in the Ancient East* 1941, p. 266, figs. 367 and 368 suggests that similar curled animals are represented on some chapes of scabbards of Median 'akinakes'. He quotes and reproduces in line drawings two such chapes (of ivory) from Egypt (in the Louvre), one (bronze) found at Deve Huyuk and one represented in Persepolis (chape of a scabbard of one of the Median soldiers, see his pl. LXXXIV). I am afraid that in all the four cases quoted by Herzfeld are represented, as we see clearly on one of the ivory chapes of the Louvre (the best preserved, published first by myself in *The Animal Style*, pl. II, 2, cf. 4), not a curled single animal, but lions devouring antelopes. On the Median scabbard-chape the figure of the lion became a set of curved parallel lines and the ear of the head of the antelope a palmette. I am using this opportunity to correct my mistake regarding those chapes. In my *Animal Style*, p. 14, I described the Louvre chapes as hilts and attributed them to Assyria.

<sup>13</sup> M. Rostovtzeff, "Les Antiquités sarmates et les Antiquités indoscythes," *Recueil . . . N. P. Kondakov*, 1926, pp. 249 ff. (in Russian, with a short French résumé).

to what I have said about these curious products of ultimately Greco-Bactrian art, but I am afraid that some of her statements are not acceptable to me; for example, the name Hvaninda, given to the goddess of one of the silver medallions (no. 13), and the interpretation of the deity of the phalera of Yantchokrak (my memoir, pl. XXV) as a goddess, and not a god.

By far the most interesting group of Greco-Iranian objects illustrated and studied by Miss Trever, a group in which non-Greek spirit and subjects predominate, is the set of Greco-Iranian half-spherical massive silver ritual or drinking cups. Three of them are in the Hermitage: the cup with the wedding scenes (no. 15, pls. 15-17); one which shows a banquet scene which Miss Trever interprets as commemorating the crowning and the wedding of a king (no. 16, pls. 18-21) and the cup adorned with scenes showing horsemen hunting lions (no. 17, pls. 22-24). I have studied these and similar cups (six were known to me at that time) in my article quoted above<sup>14</sup> and endeavored to show that they belong to the late Hellenistic and early Roman imperial times; that they must be connected ultimately with Greco-Bactrian art, though being probably made by Sacian artists and for Sacian customers (we know the work of these artists from the paintings of Ku-i-kwaja,<sup>15</sup>) and that the figured decoration of the majority of them represents Iranian subjects. Miss Trever came to approximately the same results. We disagree, however, on some points. Miss Trever is inclined to assign to the three cups studied in her book much earlier dates than those tentatively suggested by me. The wedding cup (no. 15) she regards as being made in the third century B.C.; the banquet cup (no. 16) belongs, according to her, to a time not earlier than the first century B.C.; and the hunting cup (no. 17) to the second-first century B.C. I cannot agree with these dates for many and various reasons. It would require too much time to discuss them here and illustrations would be required. Suffice it to say, as regards the earliest of the three—the wedding cup—that the mixture of Hellenistic and oriental motives and styles; the peculiar composition which Miss Trever has not compared carefully with Hellenistic compositions of the same time, and the local

subject cannot be regarded as the result of a short contact between Greece and Iran. It took a long time to produce an artist of local and not Greek blood, who would create such a mixture of two arts and two conceptions of life. It is obvious that the two other cups are later than the wedding cup. How much later we do not know, but the hunting cup is closely connected with some products of early Sassanian art and the rosette at the bottom cannot be (as was shown by Dalton) of an early date.<sup>16a</sup>

The second point in which Miss Trever differs with me is in the interpretation of the scenes represented on the wedding and the banquet cups. While I was inclined to interpret them in the light of the Iranian epos, Miss Trever endeavors to show that the first two cups illustrate various aspects of the wedding ceremonies as described in the Vedas and the Sutras. The cups themselves were, in her opinion, ritual symbolical wedding cups (*dhishana*). I regard the analysis of the first cup by Miss Trever as interesting and suggestive. The only difficulty is the absence of fire in the scenes of the cup, whereas fire played a leading part in wedding ceremonies as described in the Vedas and Sutras. Less acceptable to me is her interpretation of the scenes represented on the second cup. I cannot see that the two men on the two sides of the boar are killing the animal; it seems to me that they are fighting each other (pl. 19, 2). Nor can I agree with her interpretation of the group of a Herakles-like hero and the old man before him.

<sup>16a</sup> I may mention, for the sake of those who may carry on the study of the many problems presented by the cups under discussion, that the banquet cup finds a striking parallel in one of the many ornamental stone disks found in Northern India, especially in Taxila, typical products of the hybrid art of the Sacian and Parthian period in the life of Northern India, mixture as it was of Greek, Iranian and Indian elements. The scene carved on the front of this disk, probably a copy or a free reproduction of the decoration of a metal disk or cup, represents a banquet, probably a wedding banquet similar in composition to that represented on the banquet cup but more Hellenistic in style. The disk was found at Taxila in 1932-1933 and is now in the Taxila Museum. I have studied it there and am in possession of a photographic reproduction of it. It is not reproduced or mentioned in the report on the excavations in Taxila for the corresponding years, see *Archaeological Survey of India, Ann. Rep. 1930-1934* (published in 1936).

<sup>14</sup> "Some New Aspects of Iranian Art," *Sem. Kond.* vi, 1933, pp. 174 ff.

<sup>15</sup> E. E. Herzfeld, *Iran in the Ancient East* 1941, pp. 291 ff. and pls. CI-CIV.



In conclusion, I may draw the attention of the reader to two more groups of objects connected by Miss Trever with Greco-Bactrian art. One is formed by the well-known fragments of embroidered woolen rugs which once hung on the walls of one of the grave-chambers of Noïn-Ula in Mongolia (nos. 48-53). We must be thankful to Miss Trever for the beautiful reproductions of some of these well-known textiles and for the addition of one hitherto unpublished fragment (no. 49). The date assigned to them by Miss Trever (second century B.C.), in contradiction to the certain date of the burial (A.D. 13), is too high. It is arbitrary to suggest, on the ground of a rather superficial stylistical analysis of the embroideries, that the rugs used for the burial were used for more than a century before that time by the family of the buried man. The textiles are probably not earlier than the first century B.C. What strikes one in the embroideries is the Greek character of the floral decoration and of the composition and style of the figured scene. The Oriental element in them is negligible. As regards the figured scene, this Oriental element, like that in similar products of the Panticapaeon school in South Russia and to a certain extent in those of some painters and sculptors of Dura and Palmyra, is confined to ethnographic details.<sup>16</sup> The textiles, accordingly, were certainly produced in a center where Greek traditions in the textile industry were very strong in the first century B.C. and A.D. Sacian and Parthian Taxila, with its wonderful jewellery of Greek type but Oriental spirit, presents valuable parallels. But any other great Greek center of the Parthian kingdom may claim the honor of having produced for its Oriental overlords or its Oriental customers inside and outside the Parthian Empire these fine specimens of Greco-Oriental textile craft.<sup>17</sup>

<sup>16</sup> Palmyra and Dura are not familiar to Miss Trever. Palmyra is quoted occasionally (pp. 41, 42, 47) and as regards Dura, Miss Trever never quotes the book of Cumont and the Yale Reports. Her source of information on Dura is a short article on the Mithraeum by Ct. du Mesnil du Buisson (*GBA.*).

<sup>17</sup> Miss Trever (p. 43) refuses to discuss the connections between Greco-Bactrian and Parthian art, on the ground that we know too little of Parthian art. In fact, we know much more about Parthian than about Greco-Bactrian art. I cannot pile up references which are familiar to the reader. The jewellery of Taxila is well known, both from stray finds and from several hoards.

South Russia has also been suggested as the place from which came part of the textiles of Noïn-Ula.<sup>18</sup> We must not dismiss this suggestion without serious consideration. The jewellery of Taxila mentioned above shows many affinities with the jewellery of South Russia of the so-called early Sarmatian period. Especially striking is the similarity between the open-work armlets of Taxila and of South Russia, inset with colored stones and between the small gold plaques of mostly geometric forms which were sewn on garments or formed necklaces found in large quantities in Sarmatian graves of South Russia and in Taxila.<sup>19</sup> But the ornaments of the friezes of the textiles of Noïn-Ula, not very successfully analyzed by Miss Trever, show to my mind such close affinities with the ornaments used in Syria that I am inclined to connect the embroidered rugs of Noïn-Ula with the "Syrian" or "Seleucid" section of the Hellenistic world, and not with South Russia. The question needs careful study, based on a detailed comparative analysis of the ornaments, which cannot be undertaken here and will not be found in Miss Trever's book.

The second group which I mentioned above are the fragmentary capitals of square pilasters (Miss Trever calls them fragments of one frieze, which is notoriously inexact) found at Airtam on the Amu-Darja, not far from Termez (ancient Deme-trias) and decorated with acanthus leaves and busts of men and women nos. 54-61; (some of them are musicians). The affinities of these fragments with Gandhara sculpture and architecture are evident; the Buddhist character of the figures has been suggested, but rejected by Miss Trever.

The hoards, on the evidence of coins, were buried by the residents of Taxila about A.D. 64, when the Saco-Parthian city of Sirkap was taken and destroyed by the Kushans; see Sir John Marshall, *Arch. Surv. of India*, Ann. Rep. 1926-27, 1930, pp. 110 ff. and pl. XXVI (jewels); cf. XXVII (plate) and *ibid.* 1929-30, 1935, pp. 55 ff. and pls. XVIII-XIX. The final publication of the excavations at Taxila is in preparation.

<sup>18</sup> G. Boroffka, *Die Antike* iii, 1927, pp. 64 ff. and *AA.* 1926, pp. 341 ff. (not mentioned or discussed by Miss Trever); cf. my *Animal Style*, p. 87.

<sup>19</sup> See my *Skythien und der Bosphorus*, pp. 543 ff. For the armlets, see especially the find of Olbia, Bori and Novoherkassk, *ibid.* p. 585, cf. p. 551; *AA.* 1912, pp. 233 ff. and my *Animal Style*, pl. XVIII, 5 (from Peshawar); for the gold plaques, *MonPiot.* xxvi, 1928, pp. 18 ff. and *Iranians and Greeks*, p. 131, fig. 17.



She believes in a Hellenistic date for some Gandhara sculptures and assigns a very high date (second century B.C.) to these fragments. These fragments will certainly be a bone of contention for many years for specialists in this field.<sup>20</sup> We must be grateful to Miss Trever for the publication of the fragments (only one has been published hitherto) and for a careful description and stylistical analysis of them. I may suggest that a study of the jewels worn by men and women represented on these fragments, in connection with the jewels represented on the statues of the Boddhisattvas of Gandharan art and those found at Taxila may help to date the sculptures more accurately. I noticed, for example, that the necklace held by the woman of the fragment, pl. 46, which consists of four-petalled rosettes with leaves in the form of commas (inlaid) finds its nearest parallel in one of the necklaces found in Taxila and mentioned above (*ASI., Ann. Rep. 1929-30* [1935], pl. XIX, 4). As a separate ornament the comma-petal appears about the same time on the Sarmatian gold plaques found in Siberia (for example, my *Animal Style*, pl. XV, 1) and has a long life afterwards in Sassanian art.

In concluding this rather long review, I may repeat that we owe much gratitude to Miss Trever for her stimulating book which, it is to be hoped, will make the highly interesting products of Greek artistic genius in one of its new abodes and spheres of activity—the Iranian world of Middle Asia—better known and more popular with students of Classical and Oriental art and archaeology, who, in general, pay little attention to them. They forget that one of the leading traits of the Greek genius is its flexibility and adaptability, best shown in products of their art made for Oriental customers. Furthermore, they do not take into consideration how important the study of Greco-Iranian art is for a better understanding of many features of late Roman and early Mediaeval art.

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SCHLIEMANN'S FIRST VISIT TO AMERICA 1850-1851; edited by Shirley H. Weber. Pp. x+112. Cambridge, Harvard University Press, 1942. \$2.50.

The Librarian of the Gennadeion has provided a new genre of humorous literature for archaeologists.

<sup>20</sup> On the date of Gandhara art see L. Bachofer, *JAOS.* lxi, 1941, pp. 223 ff.

gists convalescing from illness or overtaken by the tedium of long voyages. Those who know only such classics as *Ilios: City and Country of the Trojans* will gain a new comprehension of its author's vigor, persistence, and colorful imagination, even if certain other of their suppositions about his heroic figure become tinged with a new and startled doubt.

We have read these admirably printed and faultlessly edited pages with an almost pained attentiveness. Judging by the known and familiar to us, we are convinced that Schliemann was occasionally overhasty in his reporting, as when he asserted that "the grand marble monument which is now being erected by wilful contributions to the memory of great Washington . . . will resemble an immense pyramid;" and so we may be pardoned a certain scepticism about the less easily tested milieu in which he "climbed up at a hundred feet high cocoanut palm tree and threw down some fruit to my thirsty fellow-passengers," or saw a whole river "full of . . . iguanas." From our own casual visits to Central America we do not remember seeing "thousands of monkeys from one foot in size to man's height . . . playing about and crying in the trees," nor yet that "the butterflies have here almost the size of a pigeon;" even though we are prepared to credit of the native soldiery that "their crimes pass under the mantle" and that "they go barefooted and look like rovers with their old roasted guns."

We are consequently tempted to suggest that some fairly considerable element of the shipwreck, flood, fire, famine, plague, and violent death which light the pages of this lurid and often ludicrous diary illuminate Dr. Heinrich Schliemann more vividly than the America of 1850-51. But this, after all, constitutes the only really valid reason for the American School of Classical Studies at Athens to make so unexpected an addition to the weightily learned list of its previous publications—or for serious archaeologists to consult its fascinating but peculiar pages.

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THE SACRED GERUSIA, by James H. Oliver. Pp. xi+204. American School of Classical Studies at Athens, 1941. *Hesperia*: Supplement VI. \$5.00.

The Sacred Gerusia at Athens has always been a little known institution. Recently, however, in the American Excavations of the ancient Athenian

Agora three inscriptions were unearthed which throw considerable light on the subject. A thorough study of these documents led Oliver to undertake a comprehensive discussion of the various Sacred Gerusiae for which there is evidence in the Eastern Mediterranean world both in Greek and Roman times. The resulting book is divided into three parts. Part I is devoted to a full treatment of all the available material on this institution. Part II presents the 63 relevant epigraphical texts with translations and commentaries. Part III contains elaborate and very useful indices.

A series of imperial letters (nos. 24, 25, 26 in Part II) are the chief source of information for the Sacred Gerusia at Athens. From them we learn that it was organized in the joint reign of Marcus Aurelius and Commodus. It was concerned with the conduct of religious festivals and with the management of certain estates and other financial interests. In various matters it received guidance from the imperial procurator of Achaia. Regarding its religious functions, Oliver writes (7): "The Gerusia may have stood behind even all the chief cults of Attica, but the only evidence we have indicates a concern for the Panathenaic Festival, i.e., for the cult of Athena Polias alone or with the imperial family concomitant, and nothing else." It was a public body, but did not replace the Council of the Areopagus or the Council of the Five Hundred. Some scholars have considered it an Eleusinian institution, but Oliver shows clearly that it was an Athenian corporation in which certain Eleusinian dignitaries were prominent because of their prestige.

Although there had been no gerusia at Athens before the time of Marcus Aurelius, such corporations were common elsewhere throughout Greek history. They can be characterized as Dorian and Ionian or Asiatic. To quote Oliver (8): "The Dorian gerusia, such as we find at Sparta and Cyrene, was a political body which took a fundamental part in the routine business of governing the state. The Asiatic gerusia, such as we find at Sardis, was a social organization of the elder citizens, private or semi-private in character, corresponding to the organizations of *ephebes* and *véoi*." The Athenian Gerusia, however, belongs in neither category. Oliver shows that the Ephesian Gerusia throws much light on the nature of the Athenian institution, and consequently he devotes three chapters to the origin and character of the Ephesian Gerusia, its rôle

under Lysimachus, and under the Roman Empire, respectively.

Beginning with Tittmann in 1822, the second chapter contains a discussion of the controversy over the character and origin of the Ephesian Gerusia. Strabo (xiv, 1, 21), while speaking of Ephesus in the time of Lysimachus, says: ἦν δὲ γερούσια καταγραφόμενη, τούτοις δὲ συνέσαν οἱ ἐπικλητοὶ καλούμενοι καὶ διόκουν πάντα. Many scholars have argued from this passage that Lysimachus organized gerusiae both in Ephesus and in other cities of his kingdom. Oliver emphasizes that Strabo's words do not imply that Lysimachus founded these various gerusiae. Following Charles Picard, who maintained that Lysimachus had transformed a previously existing social organization at Ephesus known as the Gerusia, Oliver writes (13): "If indeed, a Gerusia at Ephesus predated the reforms of Lysimachus, it could scarcely have been anything else in origin but an ordinary Asiatic Gerusia, actually or theoretically a social organization to which the most respected Greek citizens of Ephesus belonged and through which they enjoyed the amenities of a gymnasium. The fact that down into Roman times the first officer of that public board of sacred managers, the Ephesian Elders, was still called the gymnasiarch, points strikingly to the soundness of this deduction."

When Lysimachus secured control of northwestern Asia Minor, some of the great sanctuaries, because of their tremendous wealth, were playing an important social and economic rôle. One of the most famous of these sanctuaries was that of Ephesian Artemis. Lysimachus was unwilling to plunder the Artemisium, but he needed money and consequently was anxious to remove the riches of Artemis from the independent control of the priests. He attempted to solve the problem by transferring the management of the finances to the Gerusia of the respected older citizens of Ephesus. Thus the Ephesians nominally had control of their sanctuary, but hereafter there was a definite cleavage between the religious and secular affairs of Artemis. The passage of Strabo quoted above shows that the Gerusia alone did not constitute the managing board; with the Gerusia were associated ἐπικλητοί. Oliver interprets the ἐπικλητοί as special appointees of Lysimachus to advise and restrain the Gerusia. If this interpretation is correct, it is clear that *de facto* Lysimachus had not transferred the entire management of the sanctuary to the Ephesians.

He naturally was anxious to keep the economic supports of his kingdom out of the control of irresponsible agencies.

Oliver insists that Strabo's *καὶ διόκουν πάντα*, because of the general context, can mean only that the Gerusia and the *ἐπικλητοὶ* managed all the affairs of Ephesus. He writes (19): "Nothing prevents us from explaining the universal power, which Strabo seems to attribute to them, as based not on their constitutional position in the city's political administration, but on the personal prestige of the type of men who would have belonged to the Gerusia and would have been selected as its associated advisers, and likewise on the economic position of the board, which administered, at that time, with complete independence of the popular vote, the mundane affairs of the great sanctuary, far the most important thing at Ephesus, the sacred 'bank' on which the financial welfare of the city depended. The board was, no doubt, influential enough for its expressed desires to be carried out by the Council and Demos whenever the latter recognized an opportunity of obliging the Gerusia and Associates. . . . Apparently the Ephesian Gerusia, like the Amphictyonic Council at Delphi, because of the prestige of the sanctuary, overshadowed and dominated the institutions of the local city state."

On the basis of present evidence, Oliver believes that the Gerusia at Ephesus was, in the Hellenistic Period, the only one whose function was to control the business affairs of a sanctuary. In addition to this supervision of the economic interests of the Artemisium, the Gerusia apparently had numerous duties in connection with the conduct of religious festivals.

After the time of Lysimachus the first datable reference to the Ephesian Gerusia is an inscription from the year 104 A.D. In that long interval the Gerusia either became subordinate to the city or possibly it completely disappeared. If it did exist, it certainly did not have the same control over the Artemisium as in the days of Lysimachus. Under Trajan, however, a thorough reorganization of city finances occurred in the East. Once again the Ephesian Gerusia began to play an independent rôle. The datable inscriptions continue into the reign of Commodus and reveal that the Roman government had a genuine interest in the Gerusia. From the scanty epigraphical evidence, Oliver reaches the following conclusions regarding the character and functions of the Ephesian Gerusia

in the second century A.D.: it was a public corporation of an economic character, but it apparently did not regain control over the income of the Artemisium. It had the management of large funds, however, and with these it engaged in numerous money-lending activities. It offered economic assistance to the cult of Artemis by contributing to certain festivals. Its connections with the imperial cult are to be explained by the fact that that cult was associated with the worship of Artemis.

After his exhaustive treatment of the Ephesian Gerusia, Oliver turns to a discussion of similar institutions at Athens and elsewhere. His prior investigations have made it clear that the Athenian Gerusia was patterned to some extent on the Ephesian body. Epigraphy points to the year 177 A.D., or shortly before, for the establishment of the Athenian Gerusia, and this date leads to a probable hypothesis for the occasion of its founding. In the years 175-176 A.D. Marcus Aurelius visited first Ephesus and then Athens. Athens was still recovering from the effects of the recent incursion of the Costoboci, and the emperor presumably considered such a period of reorganization an opportune time for establishing a Gerusia of the Ephesian type.

Referring to the Gerusia at Hyettus, Oliver makes the following interesting observations (30): "Whereas the Gerusiae at Athens and at Roman Ephesus were called officially the Gerusiae of the Athenians and of the Ephesians respectively, the institution at Hyettus is not called the Gerusia of the Hyettians but of the Savior Asclepius, and whereas the Gerusia at Athens and at Roman Ephesus as yet cannot definitely be connected with the business affairs of the local deities, the institution at Hyettus obviously manages the estates of a deity and has no demonstrable connection with the imperial cult. In its conception the Sacred Gerusia of the Savior Asclepius at Hyettus stands closer than the Gerusiae of Roman Ephesus and Athens to the original type launched by Lysimachus."

It is important to note that at Hyettus and Athens we meet the term *sacred* Gerusia, whereas at Ephesus the adjective is not employed. The epithet was not necessary at Ephesus, where the Gerusia had had its special character for so many years, but when this type of institution was introduced at Athens and Hyettus, the qualifying adjective was needed to distinguish the new creation from the ordinary type of gerusiae.

Oliver decides consequently that, whenever the expression *ἐπὶ γερουσία* occurs in official language, it probably refers to a gerusia of the economico-religious kind, such as those at Athens, Ephesus, and Hyettus.

Oliver then proceeds to make cautious use of this criterion in an attempt to determine which of the Gerusiae mentioned in the sources belong to the ordinary and which to the economico-religious type. He also suggests that, since Hadrian apparently was the first emperor to take interest in the Gerusia at Ephesus and since the institution was not transferred to Athens until the time of Marcus Aurelius, the establishment of Sacred Gerusiae of the Ephesian type in other localities probably occurred in the second century A.D. His investigations lead him to decide that it is impossible to be positive that the Gerusiae at Thessalonica, Apamea, and Tralles were of the economico-religious type. Those at Ephesus, Athens, and Hyettus certainly were, and the same can be said with great probability of the two or three Gerusiae at Stratonicea in Caria, of the one at Prusias ad Hypium in Bithynia, and of those at Philippopolis and Aenus in Thrace.

Concerning the duration of these Sacred Gerusiae Oliver reaches the following conclusions. Most of them apparently were still in existence after the promulgation of the *Constitutio Antoniniana* in 212 A.D. At Thessalonica two Gerusiae—probably sacred—were established approximately in the reign of Severus Alexander. There is a reference to one of them from the year 261, but this is the last allusion to what may have been a Sacred Gerusia. It presumably disappeared before the end of the century and was among the last to become extinct.

Chapter VI is entitled "Terminology, Officers, Members, Roman Supervisors." Much of the material is too technical to be mentioned here, but one or two points may be touched upon briefly. Membership in the Gerusia apparently was not a liturgy incumbent upon wealthy citizens. In fact, members often received from various sources modest gifts of money. The Gerusia should be thought of as a large body whose members were outstanding citizens. At Hyettus membership depended on co-optation and it had a tendency to become hereditary. At Athens the Roman supervisor for the Gerusia was the imperial procurator, because Athens, a *civitas libera*, technically was not subject to the authority of the proconsul of Achaia. At Ephesus, however, a city incorporated

in the senatorial province of Asia, the proconsul acted in this capacity for the Gerusia. When the financial affairs of the Ephesian Gerusia needed reorganization, the proconsul appointed a special commissioner (*λογιστής*) to examine accounts, to collect debts, etc. The term *λογιστής* was used to designate the *curator rei publicae*, appointed by the Roman government in the second century A.D. to help cities in financial troubles. Oliver emphasizes that, when Hadrian directed the proconsul to appoint a *λογιστής*, he was extending to the Gerusia—a public body with important financial duties—a system introduced for the cities by Trajan. In this connection it is significant to notice that the *λογιστής* was appointed only at the request of the Ephesian Gerusia. In all ordinary affairs the procedure apparently was for the Gerusia to apply to the proper proconsul or procurator, but in matters relating to the imperial cult, application was to be made directly to the emperor.

In the final chapter, Oliver gives a useful recapitulation of his findings on the history of the Sacred Gerusia. He places great weight on the interest in this institution shown by Hadrian and the Antonines, and suggests that this concern was part of a general plan to revive the old religious beliefs. Such a policy might be effective against the growing influence of Christianity. Oliver writes (50): "And since the distributions and gaiety of the festivals helped to keep the proletariat contented, these corporations, which guaranteed the regularity of the festivals, were stabilizing factors in the Roman East. The imperial government, which regarded the establishment of clubs with a jealous and suspicious eye, gave spontaneously its full support to this institution, wherein the membership, unlike that of the clubs, was drawn entirely from the aristocratic, conservative, heartily pro-Roman elements of the population."

This book is a welcome contribution to a difficult subject. As Oliver frankly admits, some of the results are disappointing, because the evidence is so often unsatisfactory. It is of great value, however, to have all the material pertaining to this institution comprised in one volume. The present reviewer does not feel qualified to pass judgment on many of the interpretations, but they seem sound and frequently are very penetrating. In the commentaries on the inscriptions and in various suggested restorations, Oliver has once again proved himself an extremely able



epigraphist. He deserves sincere congratulations on the successful completion of a scholarly and useful task. The book is a fine tribute to the distinguished scholars to whom it is dedicated—G. L. Hendrickson and M. Rostovtzeff.

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TYRRHENICA. AN ARCHAEOLOGICAL STUDY ON THE ETRUSCAN SCULPTURE IN THE ARCHAIC AND CLASSICAL PERIODS, by P. J. Riis, M.A. Pp. xiv+216, pls. 24. Copenhagen, E. Munksgaard, 1941. 20 Kr.

This is a very useful and a very courageous book. It is useful, because it is the first exhaustive collection of all Etruscan statues and statuettes in every material from the seventh to the fourth centuries B.C.; Hanfmann's excellent study deals with the beginnings only. The material is listed according to provenance, as far as can be determined, and it is dated. The book is thus the indispensable foundation for every further study in this field. It is a very courageous book because it attacks a most difficult subject. Every archaeologist accustomed to the clear and precise style of Greek art and its steady and logical development feels disheartened when he tries to define the style of an Etruscan monument and to arrive at close dating. All tangible points of attack seem to be lacking and we feel we are facing a jelly-like mass. The only thing to do is to set up a system of new categories which describes the structure of Etruscan sculptures. These categories should be positive and not only the negative antitheses of those used in Greek art. This the author unfortunately does not attempt, although he insists, and rightly so, on the stylistic approach. His stylistic analyses are too few, too general and not exhaustive. There are also a number of assertions of presumable relationship of style which will startle many readers: he connects, for instance, pl. 21, 3 with 23, 4; pl. 24, 2 with the Pietrera head; pl. 24, 4 with the Ares Borghese.

Some other passages by the author will hardly make a favorable impression on the reader: his polemics against Hanfmann concerning the statuettes from Montalto di Castro; his footnote on the terracotta warriors in the Metropolitan Museum; and his remark that the "Hittite" pose of arms and the "warrior type" might have been created spontaneously everywhere. The author makes it hard for the reader to

appreciate all the merits of his study, at least in the first part, for the reviewer gladly admits that his impression became more and more favorable as he read on. A different disposition of the material might have helped in this respect. It seems unfortunate that the material hardest to handle, that from Southern Etruria and Latium, is dealt with first, and that the chronological system is established only at the end, so that many statements seem at first to be suspended in air.

It goes without saying that other scholars will disagree with the author in a considerable number of instances, since the material treated is so extensive. It cannot be the task of the reviewer to go through all the cases. It is more important to say that the chief results are likely to be accepted. The main goal of the author is to find out whether there were numerous regional styles in Etruscan sculpture. Although at present many scholars deny the existence of regional "schools," at least for Greece, the reviewer thinks that there were such schools and that the author has succeeded in establishing three main styles, those of southern, central and northern Etruria. He is most convincing in regard to the two latter regions, whereas his analysis of the southern region, which includes Latium, seems often to lack cogency. This does not mean, however, that he does not present many acceptable ideas, as, for instance, his theories about the Sciarra bronze which he attributes to Caere and about the Ficoroni Cista. As to Rome, he holds that it was not a great center of art in the earliest times. He agrees with a number of scholars that Vulci played a great rôle in the bronze industry and speaks of a "certain style-fellowship" between this town and Tarquinia. He also considers the vases studied by Dohrn and doubts the attribution of a series of these to Caere, Orvieto and Chiusi; according to the author, Vulci is a more likely place.

The second contribution of the book is the chronology; especially valuable is the chapter on the chronological fixed points. The author has the tendency to accept low dates for the period before 500 B.C. and high dates for monuments after that date. For the Regolini-Galassi tomb, a date close to 650 B.C. is proposed and for the Pietrera sculptures a date in the third quarter of the seventh century. It is gratifying to see that he dates a great number of monuments of the "classical" style to the fifth and the first half of the fourth centuries. For the Mars from Todi he



cites Greek parallels of the second half of the fifth century, but adds that the statue cannot be earlier than 420 B.C. A valuable point is the fixed date afforded by the figure representing a Gaul. The author is, however, aware of the precariousness of fixed dates in Etruscan art and always leaves a margin of twenty-five years. A fruitful chapter on the "plastic types" rounds off this important study of Etruscan sculpture.

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DANISH NATIONAL MUSEUM, DEPARTMENT OF ORIENTAL AND CLASSICAL ANTIQUITIES. CATALOGUE OF TERRACOTTAS, CYPRIOTE, GREEK, ETRUSCO-ITALIAN AND ROMAN, by *Niels Breitenstein*. Pp. viii+106, pls. 135. Ejnar Munksgaard, Copenhagen, 1941. 125 Kr.

A book and its author should be judged in relation to intention, and as this is stated clearly in the introduction to the catalogue, I should like to quote Dr. Breitenstein *verbatim*: "The purpose of this catalogue is to present the material for the use of future monographs and special treatises. For this reason the text first and foremost is descriptive. . . . Another object was to arrange the various exhibits in their geographical and chronological positions, and therefore the catalogue is compiled on those principles; where chronological order was impracticable the specimens are arranged systematically. . . . To this it should be added that completeness in the references to parallels to the various numbers could not be attained and has not been attempted."

It seems to me that one can have little but praise for the manner in which the author has accomplished the task he set himself. The photographs, taken by a single man and under similar lighting conditions, are almost uniformly excellent, and where they seem to fall below standard this is generally due to the poor preservation of the object itself. He has avoided the vulgar highlighting of so many recent publications which does violence to the essential spirit of classical art. The photographer was fortunate in having to reproduce chiefly figurines with well preserved surface modelling. The details of hair-dress on Boeotian terracottas, for example (pl. 32), can be better observed here than on most originals.

Chronological subdivisions are broad, but a careful reading of the notes in smaller print which follow each description will in many cases supply additional and closer dating. In general,

the author refrains, with almost painful self-restraint, from comment or interpretation of his own. Even the obvious Egyptian character of no. 112 is not mentioned. The reader is left to his own knowledge, or to the references in which, no doubt, it is amply discussed and illustrated. The references are very satisfactory, within the limits the author set himself. They are always to works of major importance and a pamphlet gets as much attention as a bulky volume. The illustrative material cited, although generally pertinent and in some instances excellent, cannot be used without verification, for it represents very varying degrees of similitude. Some of the parallels are so close as to suggest products from the same mould, others represent a rather general resemblance in style, others in subject matter.

In the matter of provenance, it seems to me that too much reliance has been placed on the word of dealers. The Dionysiac masks of pl. 36 could, I feel sure, be attributed with safety to Boeotia, and the same is true of the whole of pl. 37. The Thessalian group of pl. 41 is also, judged typologically and stylistically, pure Boeotian, although the provenance may have been, according to the word of the dealer, Larissa. Even the base with feet of no. 345 reveals itself as Boeotian by its height and character. When the terracottas from Asia Minor first reached the Paris market, there was undoubtedly some confusion in regard to provenance, as one may see by studying the publications of Froehner. The heads, pl. 61, nos. 500, 501, are certainly not characteristic of Tarsus, although one would hesitate to say that the attribution is impossible. I do not understand why a seated Cybele from Samsun (no. 507) is given under the heading, Syria, unless by mistake. The Aphrodite, no. 511, can be duplicated many times at Tarsus, and the fact that it was acquired in 1866 at Paris makes this a likely provenance. The same is true of the Eros, no. 732.

One would express only gratitude for the English text and pass over the extreme awkwardness and redundancy of many of the descriptions were a translator not mentioned. The language can be understood, but he should have done better. Fortunately, there are not many passages equal to the description of the warrior (no. 8) as "cylindrical, expanded trumpet-shaped downwards."

The collection is unusually representative, both in time and space, covering Italy, Greece, Anatolia, and the Aegean islands, with an important group from Cyprus and interesting pieces from

Rhodes and Melos. Terracottas of Punic manufacture come from Sardinia and there are figurines from North Africa. There are a few Greek cornices of the classical period. In Italy, Tarentum is especially well represented and there are beautiful examples of Roman architectural revetments of the types published by Rhode-Winnefeld. I should not like the delightful dancer from Tarentum (no. 631) to go without special homage from the reviewer. There is at least one example of the amusing contamination of types in which the koroplasts occasionally indulge. The youth, no. 293, holds, instead of the characteristic attribute of the cock, the swan of Nemesis or Leda. There are also some variants of well-known types which are worth noticing. The high headdress of Egyptian style, usually worn by a standing figure of severe type (*Winter Typen* iii, 1, p. 62, 3), is found on a seated figure, no. 281.

The catalogue is a sober work of genuine merit, presenting a great diversity of excellent material in clear and systematic form. It is surely destined to fulfill the intention of the author and to prove of exceptional usefulness to students in the field of terracottas, where so little has as yet been done to define the characteristics of different regional products.

HETTY GOLDMAN

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RÖMISCHES KULTURLEBEN BESONDERS AUF DEN DEUTSCHEM BODEN, Bericht über das Schrifttum der Jahre 1931-1936, by *Carl Blümlein*. Pp. 94. Jahresbericht über die Fortschritte der klassischen Altertumswissenschaft, 1938, Band 261. Leipzig, O. R. Reisland.

To review a work which itself undertakes to review the literature on a given aspect of Classical Antiquity over a period of years may seem superfluous. Classical scholars have long been well acquainted with the *Jahresberichte* and most of them would agree that they are one of our most useful devices for keeping abreast of new publications of a professional nature. A notice of a few words indicating the existence of a new member of the series and calling attention to signal omissions in bibliography would appear to fulfill the reviewer's obligation adequately and he may rightly be asked to furnish adequate reasons for exceeding the limits of such brief mention.

That I shall exceed them here is caused by the peculiar and unsatisfactory nature of Blümlein's Report and the particular problem presented by

his material, which he fails to solve. The importance of the *Jahresberichte* has lain in the fact that they are not mere lists of publications within a given field, but are critical and descriptive treatments of the material in so far as limitations of space permit. From them we have learned to expect that the author will not only indicate the contents of the more important publications, but will also express a critical opinion of their relative value within the scholarly tradition to which they belong. To decide what is important and to what extent, is a matter of the author's judgment, and others are entitled to disagree with his choice and evaluation. Since the Reports on the whole, however, have been written by scholars who have done distinguished work themselves in the fields on which they report, it can safely be stated that disagreement has applied more often to details in their critical views than to the choice of the publications which they have selected for particular treatment.

As for bibliographical completeness, we have also learned to expect that the less important works will be mentioned, if only by title. Perhaps we have been spoiled in this regard by Reports on ancient authors which have been remarkably complete in spite of a vast mass of widely scattered material. Yet, be that as it may, the result is that we approach Blümlein's Report expecting to find a certain completeness within which critical selection and relative evaluation of outstanding publications will be made. This is the tradition of the *Jahresberichte* and we have the right to ask first of all to what extent Blümlein's Report belongs within it.

To begin with the author's introductory paragraph, he states that the present Report is a true continuation of the earlier Reports on *Römische Privataltertümer*, in so far as its subject is the material civilization of the Romans at home and abroad. That literature on the northern provinces and particularly Roman Germany predominates is explained as the result of exceptionally active investigation in this local field. It was the decision of author and editor that this emphasis on Roman Germany should be indicated in a new title which would also show the students of the "germanische Vorzeit" that their fellow workers in the field of Roman Germany felt at one with their efforts and were in a position to provide them with material which could not be found in the soil of *Germania Magna*. By pointing out the Roman elements, Blümlein continues, in the "Misch-

kultur" of western and southern Germany, the "eigentlich germanische Kulturwerte" will be made to stand forth all the more clearly.

Unfortunately, the last decade has taught us to be somewhat apprehensive of such statements. Apart from the fact that the chief concern of the *Jahresberichte* has always been Classical Antiquity, we have learned that the mental step from the *germanische Vorzeit* to the *germanische Gegenwart* can be taken by some with remarkable ease. Nor is our apprehension of a nationalistic bias allayed by the fact that the first work to be described by Blümlein is a pedagogical article written to demonstrate how Roman Germany can be made a profitable subject of study in German schools. Hence, it is a relief when further reading proves Blümlein a scholar too aware of his obligations to continue in a direct nationalistic vein. For he treats his material historically and there is no undue emphasis on the early history of non-Roman Germany. A paragraph, it seems, sufficed as a sop to the Cerberus of nationalistic scholarship so far as interpretation is concerned.

But the fact that the approach is historical does not mean that the present Report continues the tradition of the *Jahresberichte* in any but one important aspect in many parts of the work. To substantiate this contention it will be sufficient to run through two sections where the deficiencies are most glaring. They are section *a*, *Städte*, and *b*, *Villae und Häuser*, of the third chapter entitled *Siedlungsweise*.

In section *a*, Blümlein begins with the literature on the town of Trier (p. 13). From there he moves from settlement to settlement in the provinces of Latin culture without keeping strictly to the geographical arrangement of his earlier Reports. Nida, which was the chief city of the *civitas Taunensium*, receives thirty-two lines of fine type in connection with an article on it in Pauly-Wissowa; an article on the legionary camp at Regensburg is discussed in eleven lines; and new information on Augusta Raurica, published principally in the *Baseler Zeitschrift*, is discussed in twelve. The summaries of the publications in question are clear and criticism follows description. Blümlein adds, modifies, and rejects continually, giving references to substantiate his opinions and showing a fine mastery of this aspect of provincial archaeology. By page 20, and the section ends at the top of page 22, Blümlein has but five places left in this section on the literature of which he still has to report. The places are

Rome, Pompeii, Herculaneum, Ostia, and Julia Dertona.

Let us now see how the literature on Rome fares. The first item is the *Topographical Dictionary* of Platner-Ashby. It is characterized as a "willkommenes Hilfsmittel," its arrangement by subject is indicated, and the statement is made that Ashby's name as editor is a guarantee that nothing essential has been overlooked. The entire notice is contained in two sentences. Süßfund's *Mura di Roma repubblicana* is mentioned by title alone. Richmond's *City Wall of Imperial Rome* comes off somewhat better in receiving a critical evaluation of three lines. Articles on the city walls by Giovenale, von Gerkan, and Lyngby complete Blümlein's treatment. In its entirety it takes up less space than the treatment accorded the single article on Nida. This leaves almost a full page for Pompeii and Herculaneum and eleven lines for Ostia.

In section *b*, *Villae und Häuser*, Blümlein begins again with Roman Germany (p. 22). He devotes twenty-eight lines of fine type to the publications of a Roman villa near Blankenheim and as he proceeds through the provinces he applies the same relatively meticulous and critical treatment which we observed in the provincial parts of section *a*. But, within the ten pages of which the section consists, the city of Rome is mentioned only three times: once in connection with Müßl's general *Stockwerkbau der Griechen und Römer*, once in connection with Harsh's article on the origins of the Ostian *insula*, and once in connection with Wulzinger's article on the Neronian *macellum* on the site of San Stefano Rotondo.

Now such treatment not only abandons the traditional excellencies of the *Jahresberichte*, but is highly unsatisfactory *per se*. In the first place, it ignores the obligation of critical evaluation of relative importance. I need hardly cite from the critical reviews of such scholars as Boethius and von Gerkan to substantiate the view that the books of Platner-Ashby, Süßfund, and Richmond are works of fundamental importance in the field of Roman Antiquity. Even apart from their subjects, they deserve respectful consideration for their breadth and learning. But I will not grant that their subjects can be ignored and, since they deal with important aspects of the most important city by far in the Roman world, I believe that they deserve greater attention than Nida or Augsburg in a general Report on römisches Kulturleben. Nor can Blümlein's prefatory remarks,

placing emphasis on Roman Germany, be made to justify this treatment. There we were told that Roman Germany would be emphasized because its remains had been investigated with particular thoroughness and, in all fairness, it may be conceded that local archaeological activity has been more vigorous in Roman Germany than in the other provinces of the Empire. But, even assuming that a hundred sites had been excavated and published in Roman Germany and that in Italy new publications were limited to those on the city of Rome mentioned above, there still would be no excuse for the lack of proportion shown in according an article on one provincial town fuller description and more detailed criticism than three masterly books on the chief city of the Empire. If critical values are to be discarded in this way, it would be more honest, I think, to make a precise and candid admission of the fact.

My second point concerns the striking deficiencies in bibliography with regard to Rome, Pompeii, Herculaneum, and Ostia. Here it is not only that the publications of new archaeological material are almost entirely ignored, but also that the more important general and interpretative articles and books are not even mentioned. To take but a single example, the problem of domestic architecture in Ancient Rome was the subject of at least three articles by Boethius during the years covered by Blümlein's Report. But not one of them is mentioned in the section on houses. And in the pages devoted to *Wasserversorgung* (pp. 36-39) there is no mention of E. Van Deman's *The Building of the Roman Aqueducts* or of Ashby's *The Aqueducts of Ancient Rome*, among the host of notices of provincial aqueducts, some of which go so far as to give measurements.

It is, of course, easier to point out flaws than to suggest an effective remedy. Nevertheless, it is clear to me that a different organization of the material would have been the first step toward a more satisfactory Report. We have obviously reached a point where a separate section of any general report, whether purely bibliographical or descriptive and critical, should be devoted to Rome, Ostia, and Pompeii. A glance at the *Notiziarii* of the *Bullettino Comunale* for Rome and Latium alone shows the wealth of new material which falls within the limits of Blümlein's subject as he himself defines it and it is impossible to treat it adequately as an appendage to the treatment of the provinces.

Then, within such a section, we would have the right to expect the same kind of critical treatment which Blümlein accords the provinces. Blümlein is adept in fitting together the conclusions of a number of articles on a common subject into an integrated exposition and, if he can follow this procedure in regard to the new publications on Roman physicians and their medical instruments throughout the Empire, I see no reason why he could not deal with articles on housing conditions in the city in the same way. Finally, important books would be handled separately according to the author's opinion of their relative importance.

So far I have limited myself to the sections which Blümlein treats by locality and which, because of their essentially archaeological nature, may also be of particular interest to the readers of this JOURNAL. The rest of the Report is treated by subject and there we find the traditional headings of *Tiere, Pflanzen, Kunstgewerbe, Privatleben*, etc. Since Blümlein is a recognized authority on these subjects, it is not surprising that these parts of the Report meet our expectations pretty well. The bibliography is not as complete as it might be, since the author has curiously omitted some important articles in the well-known journals while giving the impression of having ransacked local publications which are available to few of us. On the other hand, his intelligent critical treatment of the material which he has gathered is some compensation. He recognizes the great importance of a new discovery such as the sarcophagus from Simpelveld for our knowledge of the exterior and interior of a provincial villa and spots the article or monograph which is no more than a rehash of what has been said better before. And his own additions often serve to complete the picture.

All in all, then, the Report is most uneven. It is highly unsatisfactory so far as the strictly archaeological parts are concerned and I warn the student who will have occasion to use it not to waste his time on the part dealing with Italy. But, with regard to the other parts, he will still find it the best guide. The *Jahresberichte* have deserved well of classical scholars for many years, but are the kind of publication to which indebtedness is rarely acknowledged. Hence I particularly regret that one of their number gave occasion for such adverse criticism. Nevertheless, I would express the hope, in closing, that Blümlein may become conscious of the defects which I have



noted and take steps to eliminate them in his next Report.

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THE FERIALE DURANUM by Robert O. Fink, Allan S. Hoey, Walter F. Snyder. Pp. 1-222, 2 plates, 4 figures in text.

PUBLIC ANNIVERSARIES IN THE ROMAN EMPIRE: The epigraphical evidence for their observance in the first three centuries by Walter F. Snyder. Pp. 225-317.

Reprints from *Yale Classical Studies*, Vol. VII; Yale University Press, New Haven, Conn., 1940.

The three authors of this publication of a significant papyrus worked together to combine the fragments of the text, and, while each wrote a section of the commentary, all three seem to have concerned themselves with questions of restoration and interpretation. Throughout the study there are notes giving divergent views of the authors. Here is a type of material particularly suited to collaboration. For the successful completion of the task this reviewer feels warm admiration, not unmixed with envy for the pleasure the three scholars must have had in working together and in discussing their problems with Professors Rostovtzeff, Bellinger, and the other members of the Yale Classical Faculty to whom they make acknowledgment. The publication, inscribed "Michael Ivanovich Rostovtzeff grato animo," is a fitting tribute to a great scholar.

The papyrus roll contains the remains of a Latin calendar of festivals, written in rustic capitals and dated between the years 224 and 235 A.D. Since the document was found in the archives of the garrison of Dura, it can be classified as a military calendar, the first of the type that has been discovered. In the text the only festival that is specifically military is the *rosaliae signorum* of May 10 and 31 (see Hoey, *Harvard Theological Review* xxx, 1937, pp. 15 ff.). Since the *signa* belonged not to an auxiliary cohort such as garrisoned Dura but to the legion, I should be tempted to take *legio* of col. I, 7 (provisionally restored as [*privi*]*legio*) as a reference to a legion (cf. note 197) and to suggest that the calendar may be a copy of a document issued for the whole army (see note 42). In such a calendar it would be natural to have the chief emphasis on the legionary rather than on the auxiliary forces.

There are fragments of the calendar for every

month from January to September and a few letters that belong to December, and there are sufficient remains to provide a fairly complete list of festivals from March 19 to August 5. The authors have been bold in their suggestions for restoring the more fragmentary passages, but they themselves always warn the reader when the restorations are uncertain. The significance of the calendar is fully discussed by Mr. Hoey in the final chapter on "The Ferial Duranum and Official Religion." The festivals and the cult acts prescribed are from the state list of festivals at Rome, most of them already known from the Roman calendars and the *Acta Fratrum Arvalium*. The list gives a picture of the religion of the army which is decidedly at variance with the views of Domazewski, who wrote the standard book on the subject. The ancient festivals include the *Quinquatria*, the *Natalis Urbis* (once the *Parilia*, perhaps not so distinct from Hadrian's *Natalis Urbis* as Mr. Hoey believes), the *Vestalia*, the *Nepetunalia*, and the *Saturnalia*. In addition to these festivals, which go back to the kingship, the birthday of the temple of Salus on August 5 is included. The complete absence of Oriental cults, even of that of Cybele, who had long been recognized in state cult, is noteworthy. As in the cult records of the *Acta Fratrum Arvalium*, the festivals belong chiefly to the imperial cult—anniversaries of victories and honors of the living emperor, with sacrifices in every case to the Genius of the emperor, birthdays of *divi* and *divae*, and commemoration of the *dies imperii* of several emperors. Among the birthdays it is significant to find that of Divus Julius which is omitted in the *Acta Fratrum Arvalium*, not because, as Mr. Hoey suggests, Divus Julius did not have a place in state cult—his temple and priest show that he continued to have that (cf. Dessau 1122)—but because he was in a somewhat different category from the *principes* who had become *divi*. It is of some interest that the birthday of Germanicus is listed among the celebrations. On the reconstruction of the note on January 11, I agree with Mr. Hoey (arguing against Mr. Fink) that the name of Lucius Verus should be restored. Otherwise it is hard to explain the sacrifice of a *bos mas*, a victim regularly offered to a dead ruler. The one exception to this rule in the A.F.A. is probably a stone-cutter's error.

As in the records of the Arval Brethren, the cult acts prescribed are mainly sacrifices of victims—always cattle in the Dura document—or



*supplicationes*, a term that, as Mr. Hoey shows, widened in meaning in the Empire. The slaughter of large victims to gods, *divi*, *divae*, and the Genius of the ruling emperor doubtless provided the soldiers with good dinners for the various festivals. One can imagine also that the *supplicatio* performed with incense and wine meant the distribution of drinks to the soldiers.

Mr. Snyder's study of "Public Anniversaries in the Roman Empire" provides a convenient supplement to the *Feriale* which has been useful to the commentators. My Snyder is concerned with dated inscriptions which have in their text no definite statement of the meaning of the date. Thus he has collected the various dedications set up on such occasions as the birthdays and the *dies imperii* of emperors. In many cases the association of the dates is, as the writer indicates, uncertain, but in some instances we have new and worth-while suggestions (see for example the inscription of Ostia on p. 237). The tabulation of the evidence on pp. 292 ff. is interesting, since the days following Kalends, Nones and Ides seem, as the literary sources tell us was the case, to have been avoided as dedication days.

The work closes with a special study from the author's own copy of the inscription on the quadrifront arch at Tebessa in Algeria—a calendar of dates on which *gymnasia populo publice in thermis praeberentur*. The days have, in the main, been identified by Mr. Snyder as public festivals, many of which (including the birthday of Julius Caesar) correspond with the festivals of the *Feriale Duranum*. The ingenious and convincing interpretation of this inscription gives strong support for the author's suggestion (p. 305) that "there existed in the Roman Empire . . . a number of different kinds of *Ferialia*—private, collegiate, temple, village, provincial, military, and municipal."

LILY ROSS TAYLOR

BRYN MAWR COLLEGE

MANUSCRIPT ILLUSTRATIONS OF THE UTTARĀDHYAYANA SŪTRA, by W. Norman Brown. Pp. xiii+54, 150 figures on 46 plates, and index. American Oriental Society, New Haven, 1941. \$3.00.

So far as a piece of research can be considered "complete" this excellent volume completes Professor Brown's series of studies on the Western Indian style of miniature painting which flourished from the early twelfth to the end of the

sixteenth century, and which was chiefly preserved in the Jain Mss. of Gujarat. Of the three texts most frequently illustrated, the *Kalpasūtra* and *Kālakācārayakathā* have been described previously. The *Uttarādhyayana Sūtra* can be dated somewhere about the fourth century A.D., while the illustrations reproduced are from Mss. of the fifteenth and sixteenth centuries; one of these exhibits the style of the transition towards the early Rajput paintings of about 1600. The text contains discourse supposedly addressed to monks by the Jain founder Mahāvira, and the many stories and parables embodied in these discourses readily lend themselves to illustration, which illustrations fall into set types that recur in many Mss., but there are many types not found in the two other texts; fig. 100 may be cited as an excellent piece at once of story-telling and decorative composition; fig. 74 as an example of what is already a Rajput style.

ANANDA K. COOMARASWAMY

MUSEUM OF FINE ARTS

BOSTON

THE WOLF AND FURTON SITES, MACOMB COUNTY, MICHIGAN, by Emerson F. Greenman. Pp. 34, pls. 8, figs. in text 4, maps 4. Ann Arbor, University of Michigan Press. Occasional Contributions from the Museum of Anthropology of the University of Michigan, No. 8, 1939.

These two sites lie on the shore of Lake St. Claire, some 20 odd miles north of Detroit, that is, on the rather narrow peninsula between Lakes Huron and Erie. As might be inferred, this area was not only thickly populated by Indians in prehistoric and historic times, but attracted tribes of different cultural affiliations. Thus the Wolf site, while not rich, and apparently without any recognizable traces of houses, yielded pottery of a type showing that the culture belonged to the Whittlesey Focus of the Iroquois Aspect, Upper Mississippi Phase, as previously defined in northern Ohio. The Furton site, although only two miles away, clearly belongs to the Woodland Pattern, although it cannot yet be assigned to a definite phase or aspect. Unfortunately, no house remains were found here. Although a considerable amount of eighteenth-century white men's goods was found at the site, none were excavated in association with the Indian artifacts, and the author believes that the aboriginal material found belongs to the late prehistoric period. In addition to simple pottery decorated with cord-wrapped

sticks, the site produced chipped projectile points of three types: notched, stemmed, and triangular without notches. The material collected from both sites is somewhat scanty, but it is valuable in supplementing our knowledge of this general region.

An appendix contributed by Robert Benton describes two skeletons from the Wolf site.

FREDERICA DE LAGUNA

BRYN MAWR COLLEGE

THREE ARCHAEOLOGICAL SITES IN SOMERSET COUNTY, PENNSYLVANIA, by *Mary Butler*. Pp. 79, pls. 22, figs. in text 2, tables 10, maps and plans 4, bibliography, index. Harrisburg, Pennsylvania, Historical Commission, Department of Public Instruction, Bulletin No. 753, 1939.

This concise and scholarly report presents the results of pioneer archaeological research in the Monongahela drainage basin in southwestern Pennsylvania. While the three sites described in detail all lie in the eastern portion of this region, they are discussed in relationship to the archaeology of the whole area. The results are exceedingly interesting. First, they disprove the earlier notion that the southern Allegheny Plateau was used by the Indians only as hunting territory and show instead that it had an agricultural population, living in villages. Second, they reveal that the culture of these Indians, while falling within the great family of the Woodland Pattern, has distinctive features. The author has therefore given it the name Monongahela Woodland Culture, since it is known only from the drainage of this river, but prefers to wait for further information before attempting to determine whether it represents merely an aspect of the Northeastern Phase of the Woodland Pattern, or whether it constitutes a separate phase, coördinate with the Northeastern. We have as yet no reliable clues to indicate who may have been the modern descendants of these Monongahela tribes. Their culture seems to be rather late in the general archaeological scheme (it would be assigned to the Third Algonkian Period in the earlier classification), since this culture, especially in the western part of its territory, shows Upper Mississippi (Fort Ancient-Iroquois) influences.

The houses were surface structures, probably of bark laid over poles, and were round or rectangular in outline. A large stockaded, but presumably unroofed structure, served one village as a fort. Cooking was done in pits, chiefly out of doors; and

pits also were used for storage, for refuse; and for graves. The pottery exhibits a round or pointed bottomed jar with constricted neck, beveled (incurved) side, and flaring rim as the most characteristic form. The ware is cord-marked and grit-tempered, though some smoothed and shell-tempered vessels were also made. Decorations when found were simple, consisting mainly of grooved knobs at the rim, applied bands about the rim, and simple incised designs of wide lines. Pottery pipes were of elbow type; stone pipes were elbow, modified monitor, and tubular (Adena type). Other stone artifacts include full grooved axes and adzes, celts, net sinkers, bannerstones, gorgets, discoidals, and chipped drills, knives, scrapers and projectile points (the latter being triangular, or stemmed and notched). Bone, antler and animals' teeth were used for beads, pendants, pieces for a game, fish hooks, barbed points, arrow heads, skin scrapers, knives, flaking tools, awls, ladles and whistles. Shells, of local origin or imported from the Gulf of Mexico, were used for ornaments and tools.

This report will form a valuable addition to the library of the professional archaeologist, and the student and amateur will welcome the clarity of its style.

FREDERICA DE LAGUNA

BRYN MAWR COLLEGE

A HISTORY OF CYPRUS, VOL. I, TO THE CONQUEST BY RICHARD LION HEART, by *Sir George Hill*, Cambridge, University Press, 1940. N. Y., Macmillan Co. Pp. xviii+352, Pls. XV, Maps 3.

It is an unfortunate fact that the best books usually obtain the least imposing reviews. If this were always the case, the volume in hand would receive only the barest notice: a work dealing with Cyprus which is both readable and scholarly is epoch-making.

Sir George covers the history of Cyprus from the earliest times to the conquest by Richard Lion Heart in somewhat over 300 pages. In spite of its short compass, this book contains everything of importance for all but the research student. The text proper is straightforward and written in a style which is lucid in even the most difficult sections. Problematical material is sifted in footnotes which are worthy of emulation. Emphasis is judiciously placed, and there is no tendency to favor one phase of Cypriote history at the expense of another. The uniform excellence of all parts of the book is due chiefly to Sir

George's breadth of knowledge, increased by his willingness to consult freely with leading authorities in the several fields.

Cypriote archaeology has long been plagued by the personal animosities of its protagonists, who have shown at times more interest in defamation than in facts. Sir George's complete impartiality and the authority of his scholarship infuse a needed adult note. It is not too much to hope that it will put an end to the recent resurgence of foolishness.

A few minor corrections and comments may be made, chiefly the result of publications which have appeared since the completion of *A History of Cyprus*.

The Early Bronze Age now appears to have lasted from about 3000 B.C. to some time after 2000 B.C. The initial date is suggested by a tomb at Vounous, excavated by J. R. Stewart, and discussed by him in *PEFQ*, 1939, pp. 162-168. This tomb is assigned to not quite the end of the E.C. IC period, and is dated on Palestinian evidence somewhere between 2800 and 2600 B.C. Miss Virginia Grace publishes in *AJA*, xlv, 1940, pp. 10-52, the M.M. I vase discovered in a Lapithos tomb by the University Museum expedition, together with the Cypriote objects which were found with it. Miss Grace concludes from this deposit that the E.C. III period did not begin before the M.M. I period of Crete.

On p. 31, n. 1, it is stated that the potter's wheel was not used in Cyprus during the sixteenth century B.C. It was used on what I term the "Wash ware" (see Sjöqvist, *Problems*, p. 61f., Red and Black Slip Wheel-made Wares, and cf. *AJA*, xlv, 1941, p. 271, n. 52), and on some of the plain ware. Sir George is probably correct in considering the bichrome ware imported. The question of the date of the "White Slip Ware,"

mentioned on p. 31, n. 4, is discussed more fully by Sjöqvist, *Problems*, pp. 82-84.

On p. 35, Sir George says that some Greek Protogeometric ware has been found in Cyprus. This statement, which goes back to Gjerstad (*Studies on Prehistoric Cyprus*, p. 328), originated in an imperfect conception of the difference between the L.H. IIIC, Submycenaean, and Protogeometric wares of Greece, and in the erroneous belief that the end of mass exportation of L.H. III pottery to Cyprus in the second half of the thirteenth century coincided with the fall of Mycenae. A few pieces of L.H. IIIC ware have turned up in Cyprus, and influenced the Cypriote "Submycenaean style." Greek Submycenaean and Protogeometric pottery, however, is not known from the island. Our terminology is perhaps confusing.

Miss Taylor's excavations at Apliki (*ILN*, Feb. 24, 1940, p. 251) confirm Sir George's view that copper was worked in Cyprus in the Bronze Age.

Sir George makes a surprising slip in speaking (p. 89) without qualification of the cult of Apollo Lakeutes at Kourion. The supposed evidence for the cult comes from the hypothetical restoration of a missing epithet on an inscribed pithos in the Metropolitan Museum (*BMA*, xxxiii, 1938, p. 81 f.). Subsequent excavations show that the missing epithet must have been *Kaisaros*.

The above are only details, mostly beyond the author's control, which in no way impair the value of the book. *A History of Cyprus* is far and away the best and most useful general treatise on Cypriote antiquity. Even the most limited specialist will find it a mine of sound opinion.

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**Sylloge Nummorum Graecorum, Vol. IV. Fitzwilliam Museum: Leake and General Collections. Part I: Spain (Emporiae, Rhoda)—Italy. London, 1940, Milford. iv pp.; 15 pls. 16 s.**

## ROMAN

(Including titles of works relating to the monuments of the Etruscans and other peoples who inhabited Italy before or contemporaneously with the Romans, as well as to Roman monuments outside Italy.)

## I. GENERAL AND MISCELLANEOUS

**Benedict (C. H.)** *A History of Narbo (diss.)*. Princeton, 1941, author. vi, 93 pp. \$1.00.

**Burckhardt (J.)** *Das antike Rom*. Bern, 1940, Hallwag. 93 pp.; illus.; 48 pls. 6.50 RM.

**Chilver (G. E. F.)** *Cisalpine Gaul. Social and economic history from 49 B.C. to the death of Trajan*. Oxford, 1941, Clarendon Press. vi, 225 pp.; maps. 12 s.

**Dohan (E. H.)** *Italic Tomb-Groups in the University Museum*. Philadelphia, 1942, University of Pennsylvania Press. 130 pp.; 69 figs.; 55 pls. \$7.50.

**Gamber (E.)** *Pompeji in Niederdonau. Die Römerstadt Carnuntum*. St. Pölten, 1941, St. Pöltner Zeitungsverlagsges. 39 pp.; ill. 0.60 M.

**Ginsburg (M.)** *Hunting Scenes on Roman Glass in the Rhineland (Studies in the Humanities, 1 = University of Nebraska Studies, Vol. 41, no. 2)*. Lincoln, 1941, University of Nebraska. 31 pp.; 12 figs. \$0.75.

**Highbarger (E. L.)** *The Gates of Dreams. An Archaeological Examination of Vergil, Aeneid vi, 893-899*. The Johns Hopkins University Studies in Archaeology, No. 30. Baltimore, 1940, The Johns Hopkins Press. ix, 136 pp. 15 figs. \$3.00.

**Starr (C. G., Jr.)** *The Roman Imperial Navy 31 B.C.-*

*A.D. 324 (Cornell University Studies in Classical Philology, XXVI)*. Ithaca, 1941, Cornell University Press. xv, 228 pp.; map. \$2.50.

## II. ROMAN SCULPTURE

**Carpenter (R.)** *Observations on Familiar Statuary in Rome (from Memoirs of the American Academy in Rome, Vol. 18)*. New York, 1941, American Academy in Rome. v, 112 pp.; 34 pls.

**Goldscheider (L.)** *Etruscan Sculpture*. New York, 1941, Oxford University Press (Phaidon Ed.). 34 pp.; 129 pls. \$3.50.

**Metropolitan Museum of Art. Roman Portraits, I, II**. New York, 1941, Metropolitan Museum of Art. I: 4 pp.; 51 figs. on 20 pls.; II: 4 pp.; 64 figs. on 20 pls. \$0.25 each.

## III. ROMAN COINS

**Cox (D. H.)** *A Tarsus Coin Collection in the Adana Museum (Numismatic Notes and Monographs, 92)*. New York, 1941, American Numismatic Society. 67 pp.; 12 pls. \$2.00.

**Mosser (S. McA.)** *The Endicott Gift of Greek and Roman Coins, including the "Catacombs" Hoard (Numismatic Notes and Monographs, 97)*. New York, 1941, American Numismatic Society. 53 pp.; 9 pls. \$2.00.

**Newell (E. T.)** *The Coinage of the Western Seleucid Mints from Seleucus I to Antiochus III (Numismatic Studies, 4)*. New York, 1941, American Numismatic Society. 450 pp.; 85 pls.; map. \$10.00.

**West (L. C.)** *Gold and Silver Coin Standards in the Roman Empire (Numismatic Notes and Monographs, 94)*. New York, 1941, American Numismatic Society. 199 pp. \$1.50.

## EARLY CHRISTIAN AND BYZANTINE

**Brooklyn Museum. Pagan and Christian Egypt: Egyptian Art from the First to the Tenth Century A.D.** Exhibited at the Brooklyn Museum by the Department of Ancient Art, January 23-March 9, 1941. Brooklyn, 1941, Brooklyn Museum Press. 86 pp.; 107 pls.

**Crowfoot (J. W.)** *Early Churches in Palestine (The Schweich Lectures of the British Academy, 1937)*. London, 1941, Oxford University Press. xvii, 166 pp.; 22 figs.; frontispiece; 30 pls. \$3.50.

**Leveen (J.)** *The Hebrew Bible in Art*. London, 1941, Oxford University Press. 120 pp.; 40 pls. \$3.50.

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PLATE I.—THE EASTERN APSE, SHOWING UNCOVERED MOSAIC FIGURE OF THE BLESSED VIRGIN AND CHILD ON GOLD GROUND





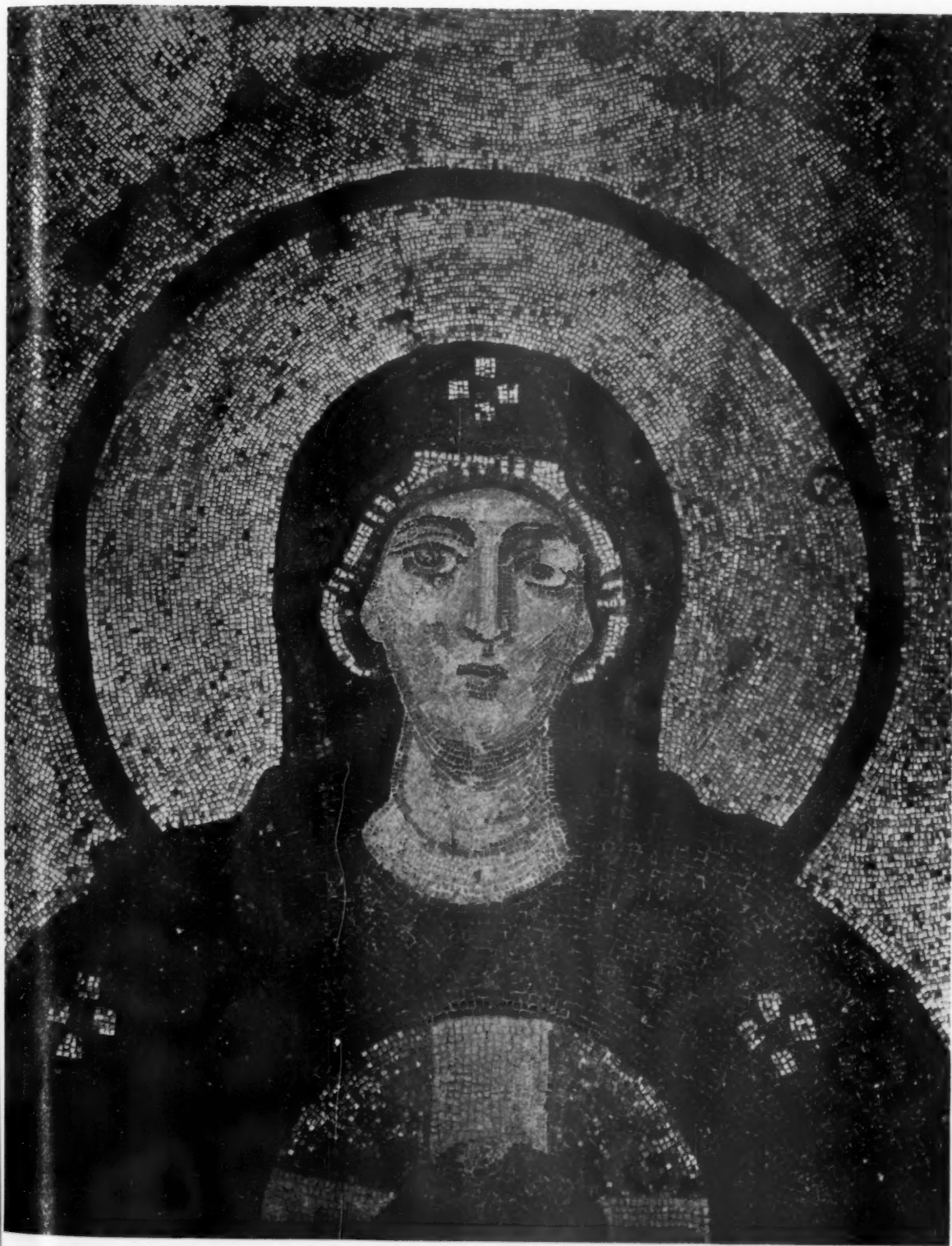


PLATE III. — HEAD OF THE BLESSED VIRGIN IN THE EASTERN APSE

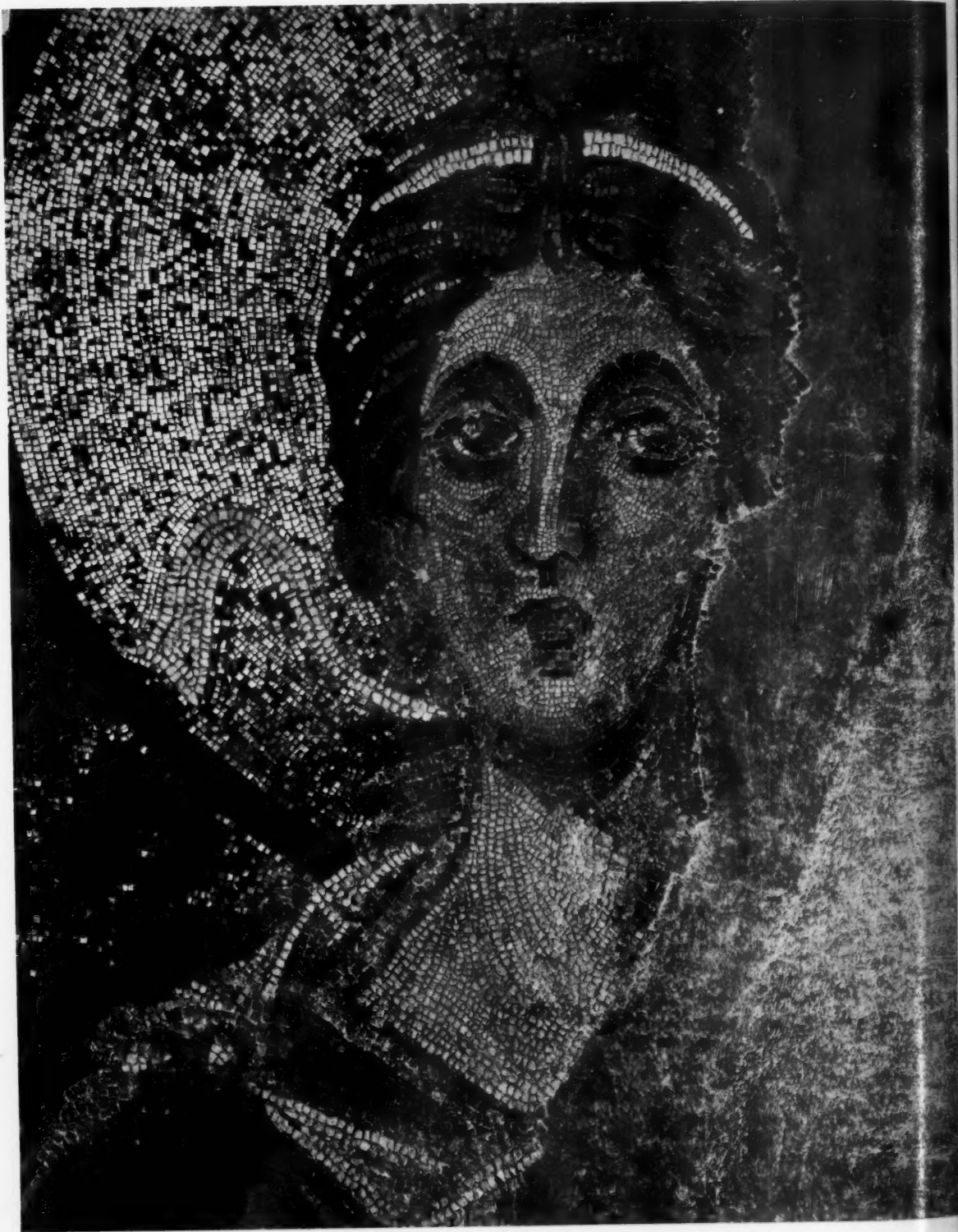


PLATE IV.—HEAD OF ARCHANGEL GABRIEL IN THE EASTERN APSE



PLATE V.—THREE PANELS REPRESENTING, ON THE LEFT, CHRIST BETWEEN CONSTANTINE IX AND EMPRESS ZOË. ON THE RIGHT, THE BLESSED VIRGIN AND CHILD BETWEEN EMPEROR JOHN II COMNENOS AND EMPRESS IRENE. ON THE FAR RIGHT, ALEXIS COMNENOS, SON OF JOHN II AND IRENE





PLATE VI.—CHRIST IN THE DEESIS, SOUTH GALLERY



PLATE VII.—EMPRESS IRENE, WIFE OF EMPEROR JOHN II COMNENOS. XII<sup>TH</sup> CENTURY





PLATE VIII.—ST. JOHN BAPTIST—DEESIS IN THE SOUTH GALLERY



PLATE IX. — BLESSED VIRGIN OF THE DEESIS IN THE SOUTH GALLERY



JOHN CHRYSTLE



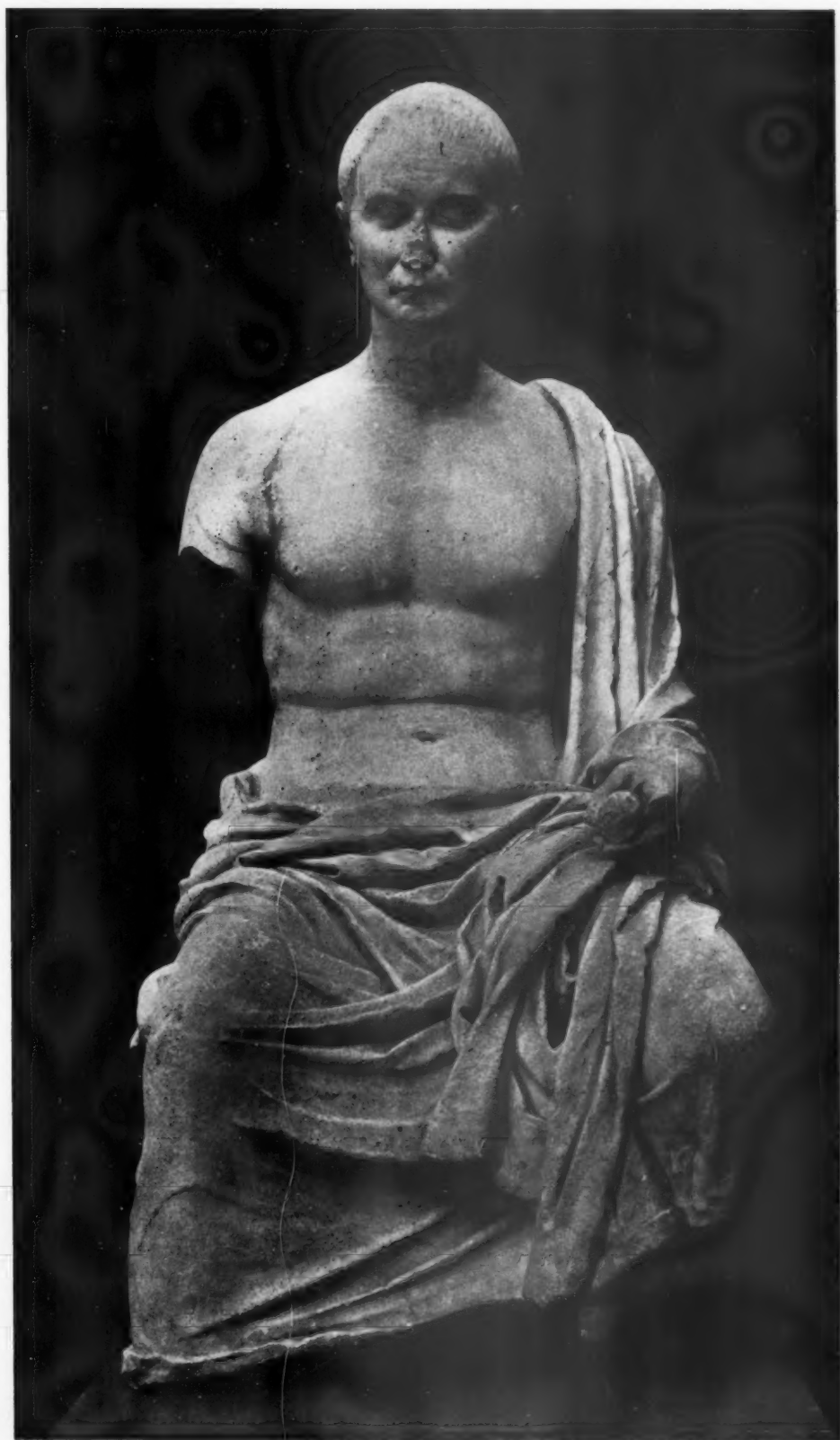


PLATE XI.—PORTRAIT STATUE FROM ROME. BUFFALO, ALBRIGHT ART GALLERY

PLATE XI.—PORTRAIT STATUE FROM ROME. BUFFALO, ALBRIGHT ART GALLERY



A



B

PLATE XII.—HEAD OF PORTRAIT STATUE IN BUFFALO, ALBRIGHT ART GALLERY



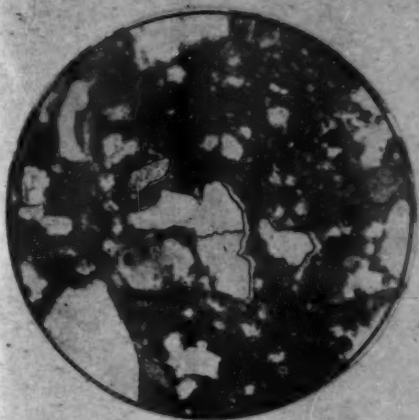


Fig. 1

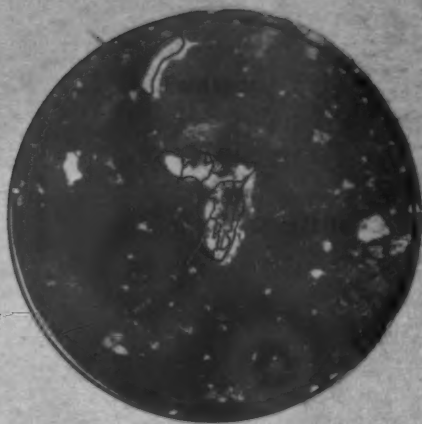


Fig. 2

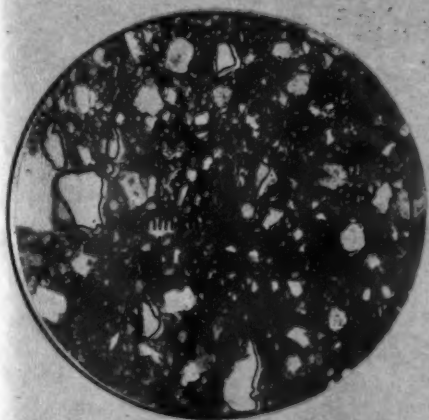


Fig. 3

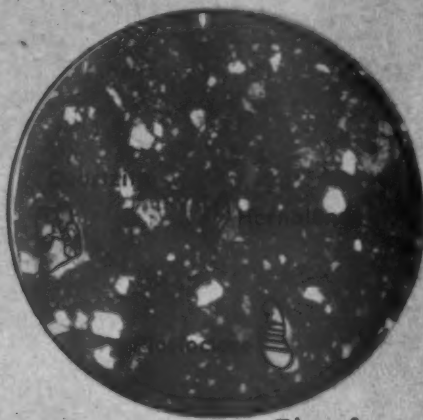


Fig. 4

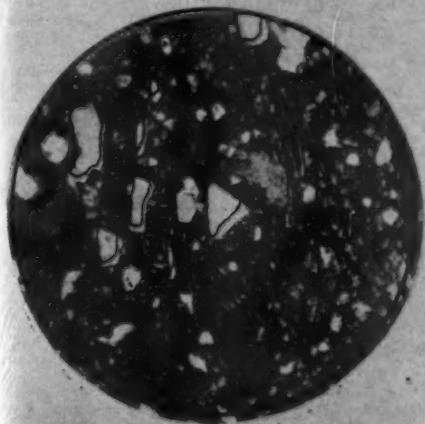


Fig. 5

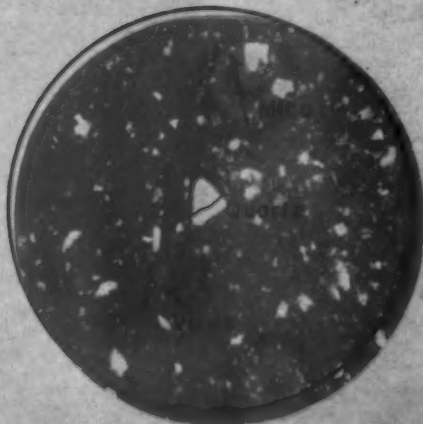


Fig. 6





Fig. 1

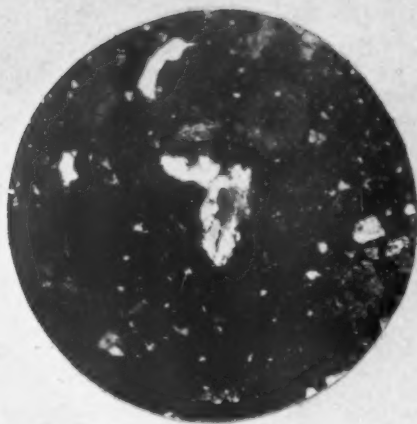


Fig. 2

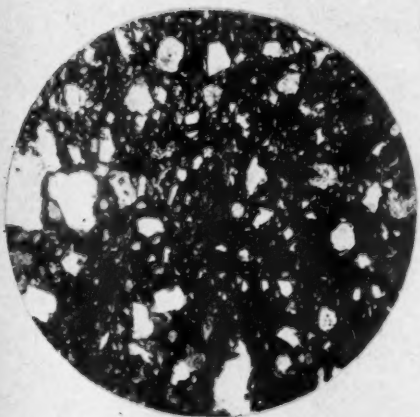


Fig. 3

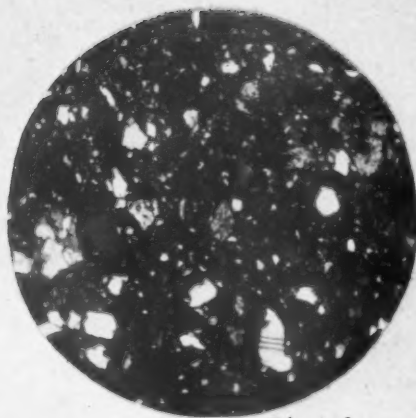


Fig. 4

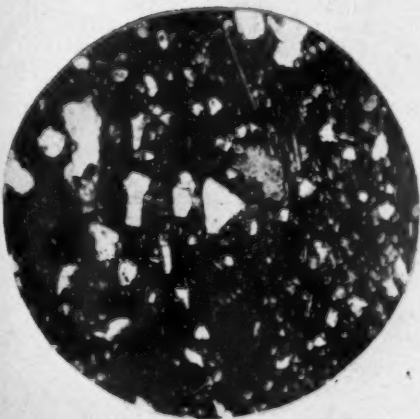


Fig. 5

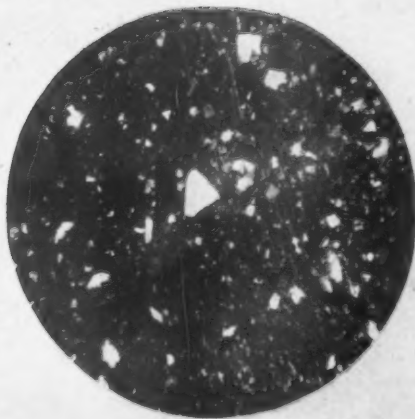


Fig. 6

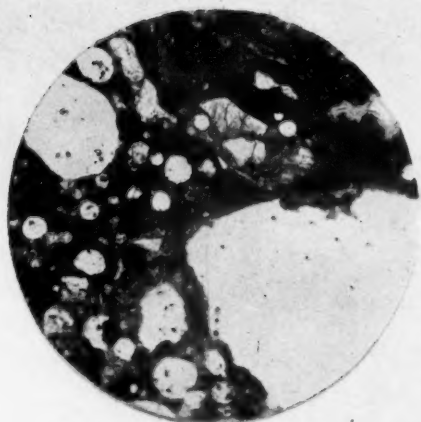


Fig. 1



Fig. 2

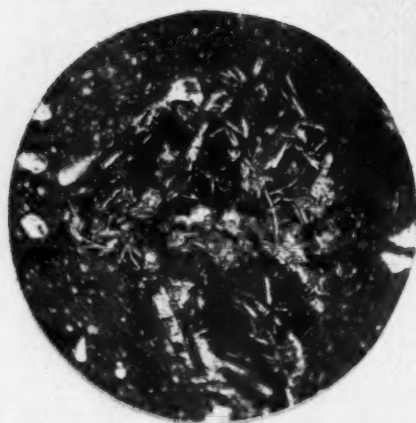


Fig. 3

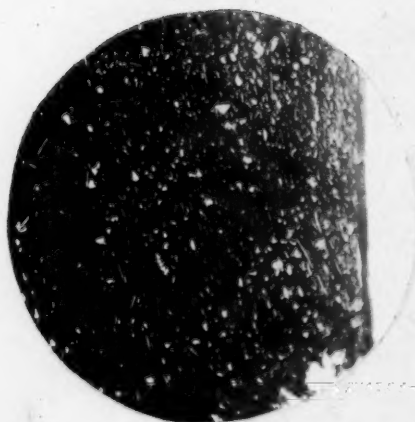


Fig 4

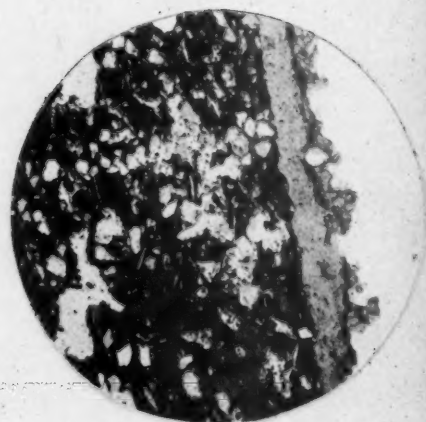


Fig. 5





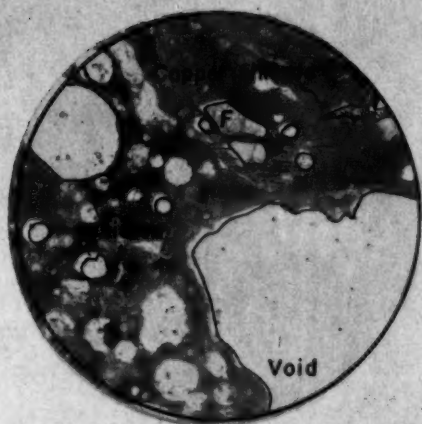


Fig. 1



Fig. 2

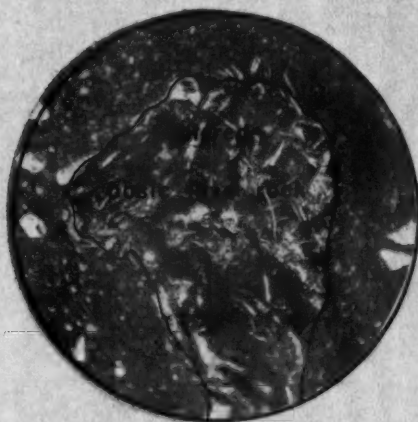


Fig. 3

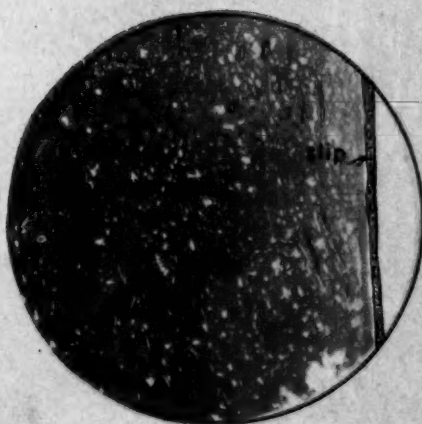


Fig 4



Fig. 5

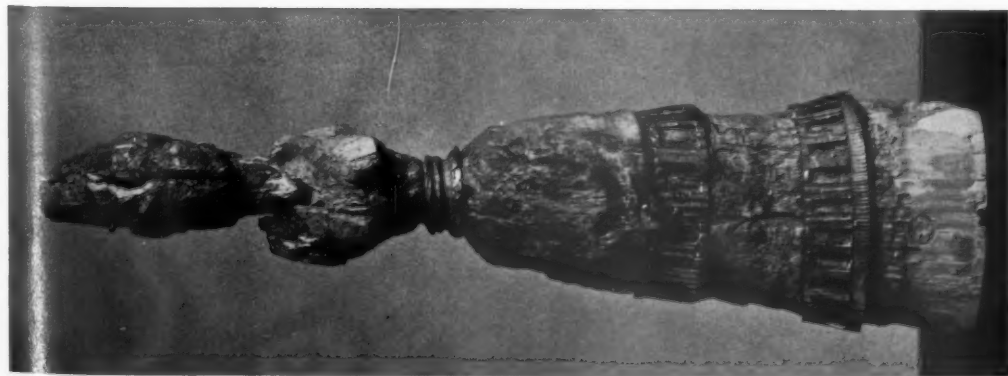


PLATE XV.—MINOAN CHRYSSELEPHANTINE STATUETTE IN PROCESS OF REPAIR  
(Courtesy of the Walters Art Gallery, Baltimore)

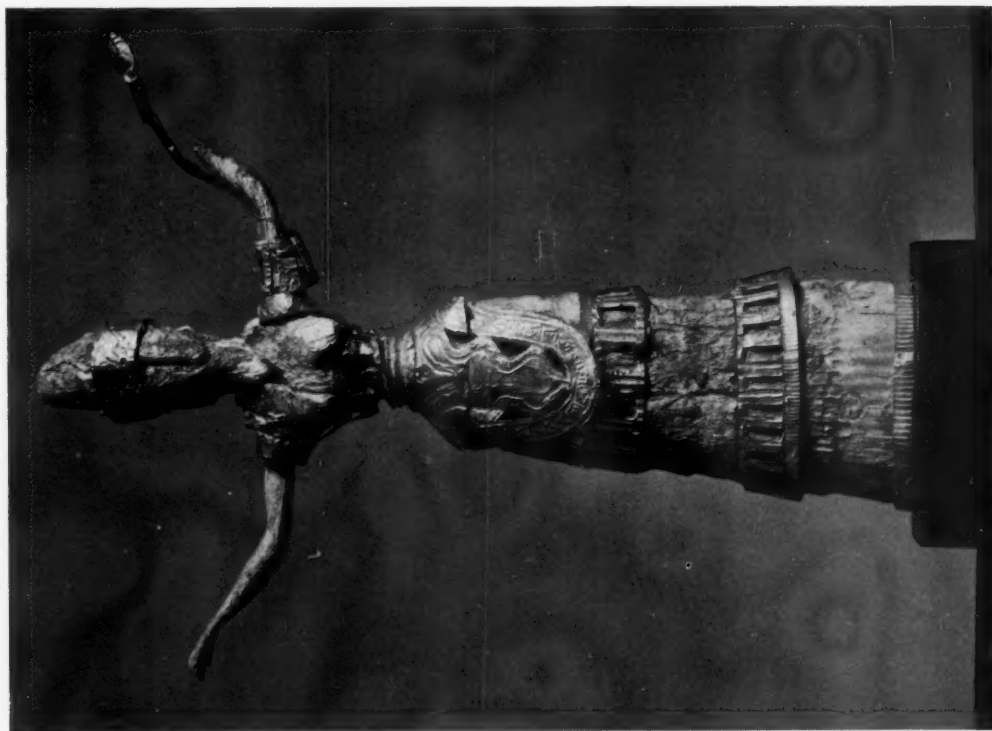
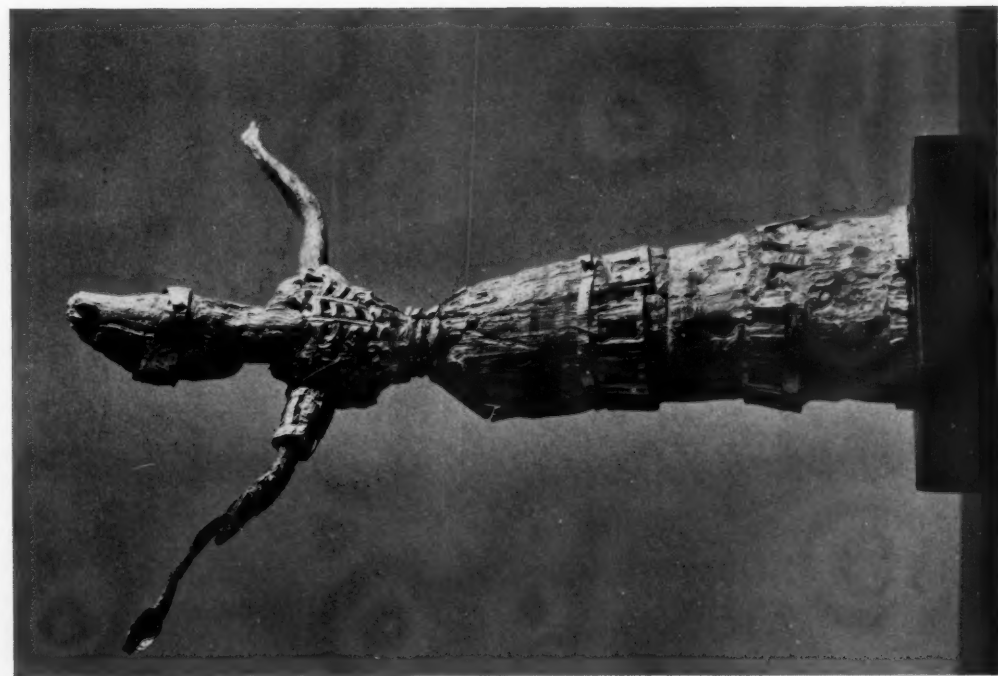


PLATE XVI.—MINOAN CHRYSSELEPHANTINE STATUETTE  
(Courtesy of the Walters Art Gallery, Baltimore)

## ARCHAEOLOGICAL NOTES

### ANOTHER ARCHAIC GREEK MIRROR

IN 1938 the Metropolitan Museum purchased a mid-archaic bronze mirror of a rare type.<sup>1</sup> Recently it acquired another mirror of similar design (figs. 1-5).<sup>2</sup> We may first look at the mirror in detail, enjoy its beauty and understand its construction, and then see what new light it sheds on the interesting questions involved.

It consists of a round disk and a female statuette which serves as its handle and nicely fits into the hand. The disk, which was originally, of course, the golden color of bronze and brightly polished for reflection, is convex in front and concave at the back, reducing and enlarging the reflected image accordingly. The disk has a charming border of beading and incised tongues and along its edge are eggs and darts in relief. It fits into an attachment terminating in volutes and decorated in front with two recumbent lions, the long curving tails of which are grasped by the female figure. On the back of the disk is a bright unpatinated circle about 4 inches (10 cm.) in diameter; perhaps it is a mark left by a utensil which was placed on the disk in the tomb. Mirror and disk must have been soldered to each other, for no trace of ancient rivets remains; the screws and solder which now hold the two together are modern.

Our interest centres in the beautiful statuette—one of the finest of its period extant. The girl is represented nude, except for a loin-cloth, and is of vigorous physique, even the rectus abdominis muscle—which generally is not marked in female statues—being clearly indicated. Her long hair is tied with a fillet and then falls down her back in a triangular mass of notched tresses.

<sup>1</sup> *AJA.* xlii, 1938, pp. 337 ff.

<sup>2</sup> Acc. no. 41.11.5. Height 13 $\frac{3}{8}$  in. (34 cm.); height of statuette 6 $\frac{1}{2}$  in. (16.5 cm.); diameter of disk 6 $\frac{1}{2}$  in. (16.5 cm.). Cast solid. Crusty, brown-green patina (see above). The attachment (including the lions), the hair and toes of the girl have suffered from corrosion. The left lion was broken off and the end of its tail is missing.



FIG. 2.—BACK OF MIRROR SHOWN IN FIGURE 1



FIG. 1.—GREEK BRONZE MIRROR, METROPOLITAN MUSEUM  
OF ART, NEW YORK  
(Courtesy of the Metropolitan Museum of Art)



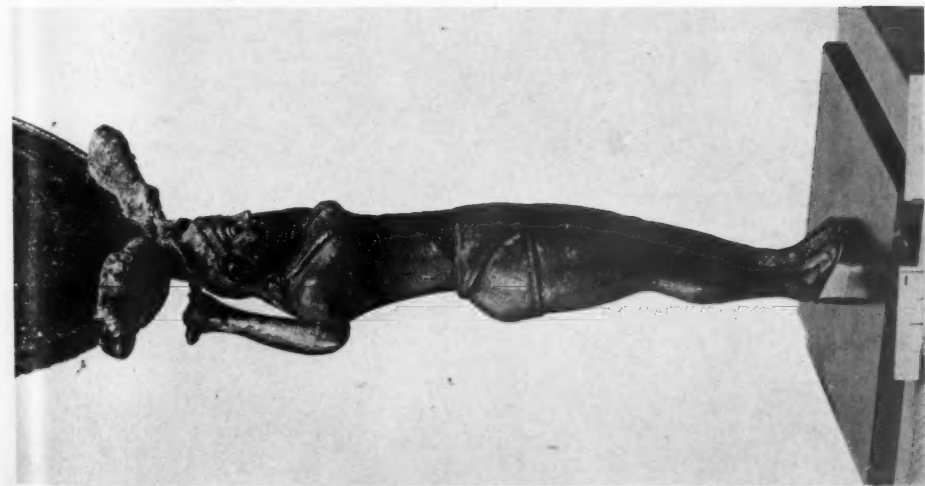


FIG. 3

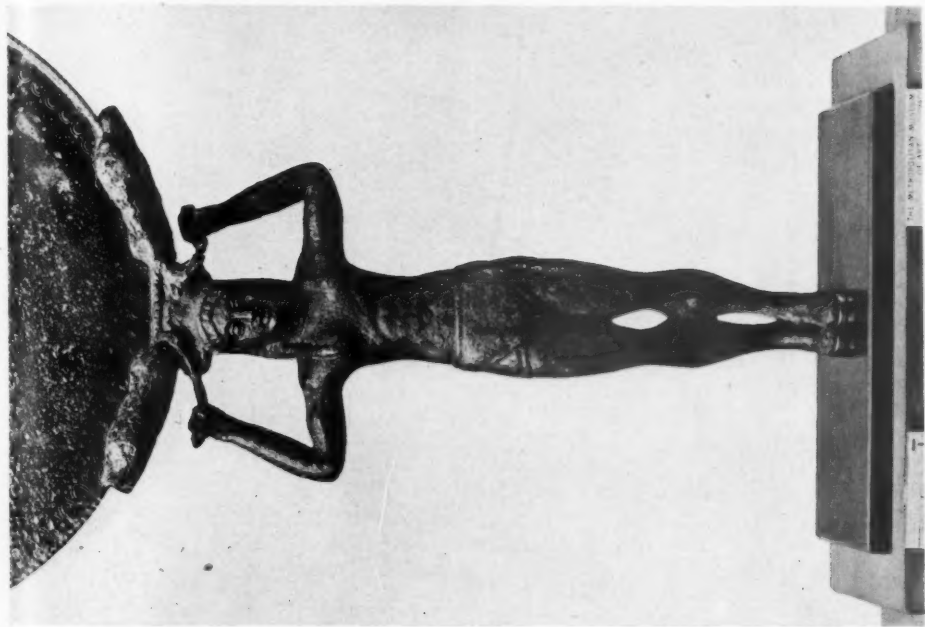


FIG. 4

HANDLE OF MIRROR SHOWN IN FIGURE 1

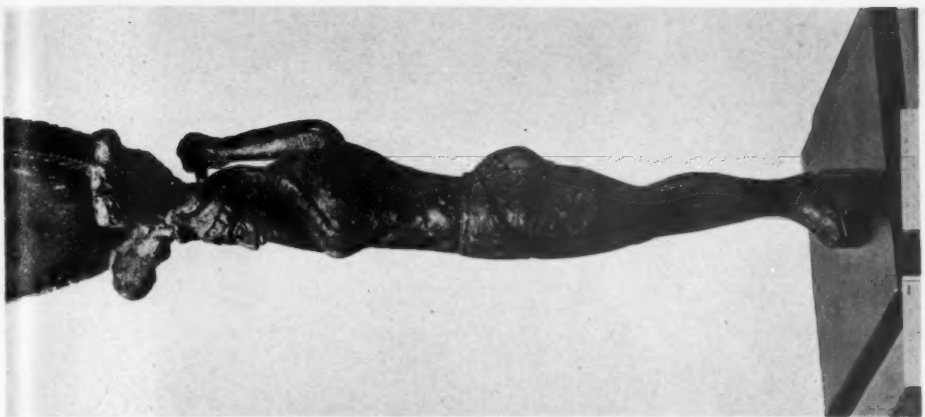


FIG. 5

The style of the figure is mid-archaic, to judge by the following anatomical observations: the back is well developed and its highest protrusion, seen in profile, is level with that of the chest; in the rectus abdominis three instead of two transverse divisions are indicated above the navel; the ear is rather primitive and slants backward; the lips do not meet at the corners. The toes evidently curved downward. We may therefore date the mirror soon after the middle of the sixth century, perhaps about 540 B.C.

The clue to the identity of the girl is the loin-clôth she wears. It is the διάζωμα (or διαζώστρα or περίζωμα), commonly worn by girl tumblers and Pyrrhic dancers,

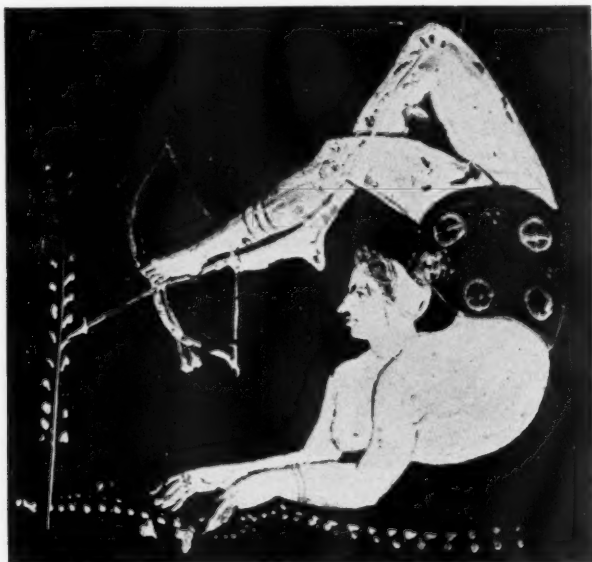


FIG. 6.—GIRL ACROBAT FROM AN EGNATIAN PELIKE IN THE STAATLICHE MUSEUM, BERLIN (B. SCHRÖDER, *Der Sport im Altertum*, Pl. 110, No. 3).

as we learn, for instance, from Athenaios<sup>3</sup> and from many representations on Attic and South Italian vases, where girls are shown turning somersaults, balancing objects on their feet, and doing other wonderful tricks<sup>4</sup> (cf. fig. 6). Our girl is therefore an acrobat, deftly balancing a large disk on her head while holding two lions

<sup>3</sup> xiii, 607c.

<sup>4</sup> Recent lists of such representations are given by Watzinger in *FR.* iii, 1932, p. 322, note 6, and by von Vacano, *Über Mädchensport in Griechenland*, a supplement to his dissertation *Das Problem des alten Zeustempels in Olympia*, Cologne, 1937, pp. 53 ff. Cf. also *DS.*, s.v. *subligaculum*, *cernuus*, and *cinctus*; W. A. Müller, *Nacktheit und Entblössung in der altorientalischen und älteren griechischen Kunst* (Diss., Borna-Leipzig, 1906), pp. 144 f.; Schröder, *Der Sport im Altertum*, 1927, pp. 162–166, pl. 110 a–c (a seems to be not the handle of a mirror as Schröder thought, but the handle of a patera; cf. *Einzelaufnahmen*, 1932; for b cf. von Mercklin, *Führer durch das Hamburgische Museum*, p. 139, no. 678, who interpreted the object in the woman's right hand not, like Schröder, as a strigil—which would identify her as an athlete—but as a curved knife).

by their tails. This interpretation was suggested also by Neugebauer<sup>5</sup> and von Vacano<sup>6</sup> for a similar figure from Aegina in Athens.<sup>7</sup> Schefold, in his publication of our mirror in *Die Antike*,<sup>8</sup> thought that both our statuette and the one from Aegina might represent woman athletes, like the nude figures of the supposedly Spartan mirrors, and like Atalanta, who is often represented with just such a loin-cloth.<sup>9</sup> Atalanta, however, is a legendary person who does not reflect a general custom.<sup>10</sup> And that the nude figures of the "Spartan" mirrors are neither athletes nor Spartans, but courtesans, perhaps from Corinth, I have tried to show in a recent article.<sup>11</sup> To the arguments there presented by Marjorie J. Milne and myself I may now add another by von Vacano,<sup>12</sup> namely that Plato,<sup>13</sup> in advocating the adoption of nudity by female athletes in his Ideal State implies that such a custom was unknown in Greece.

It is noteworthy that the alignment of disk and statuette in our mirror is not quite perfect; also that the two have a slightly different patina—though similar brown patches. That disk and statuette nevertheless belonged together is suggested by several considerations: (1) the disk is of the right type, which is comparatively rare; (2) it fits nicely into the attachment, allowing for the intervening solder; (3) its diameter exactly corresponds to the height of the statuette; (4) there are no ancient rivets either in disk or attachment, indicating that both were fastened only with solder, and soldering without rivets was—to judge by contemporary extant examples—unusual. The difference in the patina can easily be explained by the fact that the bronze of the disk, which served for reflection, was made of another alloy than that of the statuette. And an analysis of the two shows this to have been the case.

The mirror is not a recent find. It was once in the collection of J. Gréau and was listed in the sale catalogue of that collection dated June 9th, 1885.<sup>14</sup> Eleven years later it appeared in another French sale catalogue as part of the collection of "Chevalier M."<sup>15</sup> A small drawing of it was included in S. Reinach's *Répertoire de la statuaire grecque et romaine*.<sup>16</sup> Recently it was beautifully published in *Die Antike* by K. Schefold<sup>17</sup> who spoke of it as "lange verschollen und nur wenigen bekannt." A comparison of our illustrations with Schefold's brings out the greater sharpness of detail since the mirror was cleaned in this Museum.

We do not know where the mirror was found or where it was made. The fact that another mirror with a girl tumbler happens to have been found in Aegina is, of

<sup>5</sup> *Antike Bronzestatuetten*, p. 46, fig. 26.

<sup>6</sup> *Op. cit.*, p. 52.

<sup>7</sup> *Ep.* 1895, pl. vii; *JOAI.* xv, 1912, p. 241, fig. 156.

<sup>8</sup> xvi, 1940, pp. 26 ff.

<sup>9</sup> For instance, on an Etruscan mirror (Gerhard, *Etruskische Spiegel*, pl. CCXXIV) and a kylix by the Euaion Painter in the Louvre (Schefold, *op. cit.*, fig. 19).

<sup>10</sup> Cf. on this question the remarks by von Vacano, *op. cit.*, p. 52 f.

<sup>11</sup> *AJA.* xlii, 1938, pp. 342 ff. Cf. also Beazley, *Proceedings of the Royal Irish Academy* xlv, 1939, section C, no. 5, p. 39.

<sup>12</sup> *Op. cit.*, pp. 51 f.; cf. Kessler, *Plutarchs Leben des Lykurgos*, Berlin, 1910, pp. 61 f.

<sup>13</sup> *Republic* v, 457 ab and 452, especially d.

<sup>14</sup> *Catalogue des bronzes antiques*, Hôtel Drouot, Paris, 9 juin, 1885, p. 118, no. 581.

<sup>15</sup> *Catalogue Chevalier M.*, vente du 2 juin, 1896, pl. iii, no. 150 (I have not been able to verify this reference).

<sup>16</sup> *II*, 1908, pl. 330, no. 7. Cf. also W. A. Müller, *op. cit.*, p. 144 and Schebelew, *Materialy po Archeologii Rossii* 1907, p. 32.

<sup>17</sup> *XVI*, 1940, pp. 11 ff. figs. 1-5.

course, not sufficient evidence that either of them is Aeginetan. Mirrors, being portable objects, were not necessarily made where they were found. Moreover, in the rendering of body and features our figure is quite unlike the example from Aegina, so a common origin for the two is improbable. Furthermore, girl tumblers practised their art not only in Athens, as shown by Xenophon's famous account in the Symposium,<sup>18</sup> but in several other places.<sup>19</sup> They were doubtless popular all over the Greek world. As in most extant archaic sculptures, therefore, we must be content not to designate the "school" to which our statuette belonged.

The mirror was evidently not intended to stand up. In a vertical position the lions on the attachment are seen from the top, but when the mirror is lying horizontally they appear nicely in profile as they were doubtless meant to be seen. Also there is no evidence to show that the mirror had a base large enough to support the statuette and heavy disk. There is only a minute ancient rivet in the left foot by which a very small additional member could have been attached—perhaps a little tortoise or lion, as in some other extant examples.<sup>20</sup> Moreover, the imperfect alignment of disk and statuette is more noticeable in a vertical than in a horizontal position.

We can therefore make the important inference that our mirror was meant to be held in the hand and when not in use was laid down on chest or table. As a matter of fact, though this point has perhaps not been sufficiently realized, the hand mirror, not the standing mirror, was the accepted type throughout the middle, as well as the early archaic, period.<sup>21</sup> Like Egyptian mirrors, most of the early Greek ones had handles rather than supports.

The development of archaic Greek mirrors appears, therefore, to have been as follows: in the so-called Argive-Corinthian mirrors of the first half of the sixth century the handles are flat and often decorated with reliefs.<sup>22</sup> In the middle archaic examples the handles assume the form of statuettes, preferably of nude women—courtesans or acrobats. In the late archaic period the statuettes are regularly provided with substantial bases<sup>23</sup> and the draped figure is preferred to the nude. These standing mirrors were popular from the late sixth to the middle of the fifth century. Then they, in their turn, were superseded by an entirely different type—the mirrors with covers.

GISELA M. A. RICHTER

METROPOLITAN MUSEUM OF ART  
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<sup>18</sup> II, 1 ff.    <sup>19</sup> Cf. von Vacano, *op. cit.*, p. 53, note 5.    <sup>20</sup> Cf. e.g. Schefold, *op. cit.*, figs. 12–17.

<sup>21</sup> The mid-archaic one from Cyprus in the Metropolitan Museum C.B. 447 (*Catalogue of Bronzes*, no. 28) seems to be an exception. The stool on which the frog sits is broken, but its one remaining foot is flat at the bottom and the stool itself is unfinished underneath. Moreover, later mirrors terminating in such stools are standing ones (Beazley, *op. cit.*, pls. vi, vii, xi–xiii). The mid-archaic statuette in the Metropolitan Museum 06.1104 (*Catalogue of Bronzes*, no. 25) can hardly have served as the support of a mirror, for the shallow hole at the top of its head is not adequate for the fastening of a heavy disk.

<sup>22</sup> Lamb, *Greek and Roman Bronzes*, p. 126.

<sup>23</sup> Hand mirrors with simple, tectonic handles of course persisted for a long time, cf. Schefold, *op. cit.*, p. 32, fig. 27; Diepolder, *Die attischen Grabreliefs*, pl. 10.

## THE VILLA AND TOMB OF LUCULLUS AT TUSCULUM

PRESERVATION of the names of at least thirty-six owners of Tusculan villas in the republican period is eloquent testimony of the popularity of that region among the wealthier Romans.<sup>1</sup> While under the empire the number of known proprietors is only twenty-nine, this drop is probably to be explained more by the smaller amount of surviving literature of the period than by any real decline in the number of villas or by any substantial shift of favor from the *ager Tusculanus* to other regions. True, three writers of the Silver Age express preference for other sections, but this is perhaps no more than a personal taste,<sup>2</sup> since presumably most of the 131 Tusculan villa sites described by me<sup>3</sup> were in use in imperial as well as republican times. Of them all, none was ever more famous than Cicero's *Tusculanum*, the name of which, indeed, subsequently passed into literature as a synonym for a philosopher's country estate. Yet, in spite of the many and ingenious attempts made to localize it through five centuries of antiquarian interest, its exact site still defies identification,<sup>4</sup> and we must await further discoveries before we can abandon our agnostic position on this point. Moreover, thus far we have been able to associate with any given site the name of no republican owner—all owners heretofore definitely identified with their villas being of imperial date.

After Cicero's villa, to judge only from frequency of reference in the literature, the *Tusculanum* of the conqueror of Mithridates occupied *proximos honores*, if, indeed, on account of its relative magnificence, it did not really surpass Cicero's estate in size and grandeur. To attempt to identify the villa of L. Licinius Lucullus<sup>5</sup> is therefore the purpose of this article.

Plutarch (*Luc.* 39) tells us that at Tusculum or near it Lucullus had a residence (the plural apparently does not mean more than one villa) with belvederes, open corridors, and cryptoporticuses. As most of the larger and many of the smaller villas must have had at least some of these features, there is no assistance here in determining the site. It was at this villa that, on a visit to the conqueror, Pompey rebuked him because he had well prepared his house for summer, but had not equipped it for winter. Then Lucullus replied with a laugh, "Do you think, then, that I have less intelligence than the storks and cranes, that I do not change my residence with the seasons?"<sup>6</sup> It would seem clear that the villa was at least, in part, open to the outside air, and more so than the average villa, or Pompey would not have made the remark. We should expect as much from Varro's statement (*RR.* 3, 4, 3) that the villa was so designed that it was possible for Lucullus to dine on some birds in the

<sup>1</sup> George McCracken, *A History of Ancient Tusculum*, Washington, 1939, pp. 368-386, hereafter cited as *History*.

<sup>2</sup> *Stat. Sil.* 1, 3, 84-85; *Mart.* 10, 30, 5 f.; *Plin.* *Epp.* 2, 17, 2, but *Hor. Epod.* 1, 29 f. is not a case in point, since Horace is merely comparing a *Tusculanum* with Maecenas' favor.

<sup>3</sup> *History*, pp. 206-307.

<sup>4</sup> *History*, pp. 377-385; G. McCracken, "Cicero's Tusculan Villa," *CJ.* 30, 1934-35, pp. 261-277. As lead pipes seem not to have been in use as early as Cicero's day, I no longer hope to hear of one found with his name on it.

<sup>5</sup> Gelzer, *RE.* s.v. *Licinius Lucullus* no. 104 (25, cols. 676-414).

<sup>6</sup> Varro *RR.* 3, 17, 6-9.



*triclinium* and to see others flying in an aviary nearby.<sup>7</sup> This passage is doubtless based on personal observation, for Varro not only possessed a *Tusculanum* of his own,<sup>8</sup> but was also the adoptive father of Lucullus' brother Marcus,<sup>9</sup> while he also possessed intimate knowledge of the technique of such aviaries, having built at Casinum one much larger (*ib.* 2, 5, 8-18). Elsewhere, also (1, 13, 7), he speaks of the size of the villa and of its picture-galleries which were unusual as an appurtenance of a villa. One would have expected rather to find orchards on a *Tusculanum* (1, 2, 10).

On the size of the villa we have also Pliny's statement (*HN.* 18, 32) that the censors criticized it because there was less on the estate to plough than to sweep, and it may have been on this occasion that Lucullus made a neat reply to a rebuke of his luxury.<sup>10</sup> He said that a knight lived above him,<sup>11</sup> and a freedman below, and since their villas were also luxurious, he thought he should at least have the privilege of those beneath him in rank. The remark is, of course, put into Lucullus' mouth by Cicero, but even if the story is fictitious, the point that the villa was luxurious must of necessity be true. While Scaevola's villa was too small for his property,<sup>12</sup> Columella (1, 4, 6) tells us that Lucullus' was too large. Cicero also testifies that he used the excellent library of the villa after Lucullus' death, and so did Cato Uticensis.<sup>13</sup>

To these data we should perhaps add also Varro's statement (*RR.* 3, 10) about the fish-ponds or *piscinae* to be seen on some villa of Lucullus, possibly the *Tusculanum*, from which, when Cato became the guardian of Lucullus' son after his father's death, he sold enough fish to bring the sum of 40,000 sesterces (*ib.* 3, 2, 17). Tanks of this type are not found in large numbers at Tusculum, not more than a half dozen of the reservoirs described in my book being intended for *piscinae*,<sup>14</sup> and this suggests that it was at the villa near Naples that the *piscinae* were so well-stocked.<sup>15</sup> Cato, however, may have sold some from the *Tusculanum*, as it will be seen later that there is reason to believe that this villa was provided with a *piscina*.

Thus far, we have no topographical data to assist us in identifying the site, save the one fact about the excessive size of the house in comparison with the property as a whole. No evidence of an aviary has come to light at any Tusculan villa, but this is the type of structure that would be likely to disappear without a trace. Indeed, the description of ancient aviaries given by Van Buren shows that their essential features were perishable. The other details are not sufficiently unusual to be helpful.

We must now give our attention to three passages taken from Frontinus:<sup>16</sup>

<sup>7</sup> On this type of aviary see A. W. Van Buren (with R. M. Kennedy), *JRS.* 9, 1919, pp. 59-66; *MAAR.* 5, 1925, pp. 111 f.; 10, 1932, pp. 10-13, pl. 1, fig. 1.

<sup>8</sup> *Cic. Fam.* 9, 6, 4; 9, 2 and 5; Varro *RR.* 3, 3, 8-9; 3, 13; *History*, p. 377, no. 31.

<sup>9</sup> M. Licinius Lucullus, afterwards M. Terentius M. f. Varro Lucullus, see *RE.* s.v. *Licinius Lucullus* no. 109 (25, 414-419).

<sup>10</sup> *Cic. Leg.* 3, 30.

<sup>11</sup> F. Grossi-Gondi, *Il Tuscolano nell'Età Classica*, Roma, 1908, p. 101, wrongly states that this was Gabinius. See T. Ashby, *PBSR.* 5, 1910, p. 249.

<sup>12</sup> *Cic. Balb.* 56; *Att.* 4, 16, 3; *De Or.* 1, 24-27; *History*, p. 373, no. 18.

<sup>13</sup> *Cic. Fin.* 3, 2; *Acad. Pr.* 2, 148; Isidorus *Or.* 6, 5, 1.

<sup>14</sup> *History*, pp. 387-416.

<sup>15</sup> Ashby, *PBSR.* 5, 1910, p. 250.

<sup>16</sup> The text is that of the Loeb editor, C. E. Bennett, edited by M. B. McElwain (1925), but revised by me in the light of the photograph of *Codex Cassinensis* (C) printed by Clemens Herschel, *The Two Books on the Water Supply . . . of Frontinus*, New York, 1913. The date of C is variously given as from the eleventh to the thirteenth centuries, the latest Teubner editor, F. Krohn (1922) declaring for the twelfth. For the *De Aquis* this *codex* is all important, since our other MSS were all derived from it.

*Concipitur* <sup>17</sup> *Appia in agro Luculano Via Praenestina inter miliarium septimum et octavum deveticulo sinistrorsus passuum septingentorum octoginta.*

*Cn.* <sup>18</sup> *Servilius Caepio et L. Cassius Longinus, qui Ravilla appellatus est, censores anno post urbem conditam sexcentesimo vicesimo septimo [127 B.C.], M. Plautio Hypsaee M. Fulvio Flacco cos. [125 B.C.], aquam quae vocatur Tepula ex agro Luculano, quem quidam Tusculanum credunt, Romam et in Capitolium adducendam curaverunt. Tepula concipitur Via Latina ad decimum miliarium deveticulo euntibus ab Roma dextrorsus milium passuum duum . . . . . inde suo rivo in urbem perducebatur.*

*Idem [= Agrippa]* <sup>19</sup> *cum tertio consul fuisset [27 B.C.], C. Sentio Q. Lucretio consulibus [19 B.C.], post annum tertium decimum quam Iuliam deduxerat, Virginem quoque in agro Lucullano collectam Romam perduxit. . . . Concipitur Virgo Via Collatina ad miliarium octavum palustribus locis, signino circumiecto continendarum scaturiginum causa.*

If the statements made in these sentences are right—I assume for the moment the correctness of the text—then we have here a remarkable coincidence. Three of the nine Roman aqueducts are thus represented as having their sources on the estate of Lucullus (so our translations), and that in spite of the fact that their respective sources are located by Frontinus on three different Roman highways. At the time of the building of the first two aqueducts (Appia 312, Tepula 125 B.C.), our Lucullus, the most famous of those who bore the *cognomen*,<sup>20</sup> had not yet been born, whatever date we accept for his birth, and before the third was built in 19 B.C. he had been dead for at least thirty-five years. When Frontinus wrote his treatise about 100 A.D., Lucullus had been dead for a century and a half, during much of which time we have no evidence for the existence of any of this name. The persistence of the name, even of a Lucullus, in connection with a private estate through such a long period would be remarkable indeed, considering the number of owners who must have possessed it in the interim, but to find three such properties, each retaining the name of Lucullus so long after his death, and each the source of an aqueduct, is extraordinary, to say the least.

In the first passage quoted, the intake of the Appia is located on the Via Praenestina between the seventh and eighth milestone on a cross-road to the left or north, 780 paces from the highway, while the third places the Virgo's intake on the Via Collatina near the eighth milestone. A glance at any map of the course of these roads<sup>21</sup> will reveal the Viae Collatina and Praenestina at this point running roughly parallel, not an English mile apart. Since the Praenestina is to the south, a point 780 paces north of it would be close to the Collatina also, in fact probably even nearer the latter. It is therefore abundantly clear that the intakes of these two aqueducts actually are not far apart on different roads but really quite near each other, though Frontinus chose to give their locations by referring to different roads.

<sup>17</sup> Frontinus *De Aquis* 1, 5: *Lucullano* edd.; *luculano* C.

<sup>18</sup> *Ibid.* 1, 8: *Lucullano* edd.; *luculano* C; *dextrorsus* C, but *dextrosus* Herschel wrongly; Krohn has *dextro + sus* in another hand, but the *r* is quite clear, and the second hand is doubtful. After *dextrorsus* a blank long enough for four letters, and another before *inde*. The latter is shown by Herschel and Bennett as a lacuna, probably because they thought Frontinus had given the exact number of feet. I believe, however, that the blanks are due only to improper spacing of letters added to a blank space either by a corrector or the original scribe. The word *rivo* is an addition of the editors where C has a blank space of one letter's length.

<sup>19</sup> *Ibid.*, 1, 10: *lucullano* C.

<sup>20</sup> Ten Licinii Luculli are known. See *RE*. 25, cols. 372-419, nos. 99-110 (no. 105 is fictitious). All of them are republican. Curiously enough, Lucullus' son is not listed among them.

<sup>21</sup> See Gori's map reproduced in part by Herschel, *opp.* p. 184.

Perhaps on one of his inspection trips he reached the Appia by the Via Praenestina, and on another the Virgo by the Via Collatina, and so located the sources with reference to his routes, forgetting for the moment the aqueducts' proximity.

In the nineteenth century the source of the Appia was identified by Lanciani with springs which he found north of the Collatina,<sup>22</sup> and this caused him to emend the first passage cited, to read *Collatina* instead of *Praenestina*, but as Ashby, not only the most expert, but also the most recent writer on the aqueducts, says,<sup>23</sup> the volume of the springs proposed by Lanciani is too small for Frontinus' statistics, and therefore Lanciani must be wrong in his identification. If it be suggested that perhaps the volume has subsequently changed, then in Ashby's defence it may be emphasized that to accept Lanciani's emendation, it is necessary to suppose an authority like Frontinus mistaken.

Thus, it is quite possible that the intakes of both Appia and Virgo were on the same estate and this was called *ager Lucullanus*, whatever that may mean. We ordinarily find the word *ager* used with place names—I have found no examples with a personal name, but I see no reason why it could not be so used. I should, however, prefer to translate it as "an estate of Lucullus" rather than "the estate of Lucullus," as we know of other villas of Lucullus elsewhere.<sup>24</sup> No other evidence for this particular estate is known,<sup>25</sup> but it can not have been the *Tusculanum* on account of the distance. It might be the villa for winter use implied by Lucullus' statement about the storks and cranes, but I should prefer to consider that villa the one near Naples.

This brings us to the source of the Tepula, which has been identified with the modern Sorgente Preziosa, a spring rising about one and a third Roman miles due west of Grottaferrata, just north of the large bend of the Marino railway line.<sup>26</sup> The spring, now in use, is covered with a building and can not be inspected, but it has been noticed by others that the temperature of the water is considerably higher than that of the surrounding air. When the air was only 47° Fahrenheit, the water was 61–63°, an indication of the reason for the name. Another confirmation is the fact that the spring lies at about the proper distance—more exactly if the lacuna be recognized in the text (*supra*, note 18)—from the tenth milestone of the Via Latina, approximately at the modern Villa Senni which is built on the site of the Vicus Angusculanus or Res Publica Decimiensium, the first *statio* of the Via Latina.<sup>27</sup> Moreover, there was an ancient *deverticulum* which left the Via Latina between the tenth and eleventh milestones (rather nearer the latter) and went in the general direction of the Sorgente Preziosa.<sup>28</sup> Because this *deverticulum* left the Latina near the eleventh milestone (Borghetto), Rocchi wishes to emend the numeral *decimum* to *undecimum*.<sup>29</sup> Confusion might easily arise between X and XI, but if Frontinus gave the extra feet beyond the even miles, then the tenth milestone would be a better reading.

<sup>22</sup> R. Lanciani, "I Comentarî di Frontino," *Att. Accad. Lincei* ser. 3, 4, 1880, p. 247.

<sup>23</sup> T. Ashby, *The Aqueducts of Ancient Rome*, Oxford, 1935, p. 51.

<sup>24</sup> Cic. *Off.* 1, 39, 140; Varro *RR.* 3, 17, 6–9, and the passages cited above.

<sup>25</sup> Ashby, *Aqueducts* 49, note 1. Nothing on Lucullus' villa in connection with the source of the Virgo (167).

<sup>27</sup> *History*, p. 196.

<sup>28</sup> *History*, fig. 47 and Grossi-Gondi, folding map of *ager Tusculanus*.

<sup>29</sup> *History*, fig. 47 and pp. 176–177.

<sup>29</sup> A. Rocchi, "Il Diverticolo Frontiniano," *Studi di Storia e Diritto* 17, 1896, p. 125.

Whichever numeral be correct, the identification is certain and credit for it must be given to Lucas Holste (or Holstenius), who visited the region on October 16, 1649.<sup>20</sup> The following passage is quoted by Ashby<sup>21</sup> from one of Holste's manuscripts (*Cod. Dresd. F. 193, f. 43r+v*):<sup>22</sup>

*Inspexi fontem Tepulam, vulgo nunc la pretiosa dicta; est in valle Marciana sub Burgetto castello diruto in Via Latina ad XII lapidem; in dicta valle ad Crabram est officina ferraria, ultra eam ad CCC circiter passus scaturit fons aquae copiosissimus, vulgo la Pretiosa dictus, quam Tepulam esse ex Frontino certissimum est, distat enim duobus m. pass. a decimo (vulgo le Murene) dextrorsum deflectentibus. Sed cum Frontinus neget Tepulam certum habere fontem sed ex venis collectam, existimo venas illas in unam corrivatas, postquam Juliae dictu receptae amplius in urbem fluere desierunt, hoc fonte simul prorupuisse. Quod etiam idem Frontinus Tepulam agro Lucullano concipi ait, id huic fonti maxime convenit. Nam villae Luculli maxima extant vestigia sub Burgetto ad sinistram viae Latinae, ubi substructiones ingentes per vineas aliquot porrectas inspezi: ab hisce vestigiis villae Lucullanae DCC circiter passibus abest fons ille Pretiosa dictus; puto tamen multo longius se protendisse agrum Lucullanum planitiem usq(ue) ad pontem Crabrae sub Decimo ubi immensa illius villae vestigia visuntur quae vulgo il Centrone dicuntur.*

If the Sorgente Preziosa be really the source of the Tepula, and I believe the identification correct, then the spring would have been, according to Frontinus, on the property of Lucullus' *Tusculanum*. With this view, however, there are great difficulties. The site is in a region not particularly suitable for an estate of such magnificence, since the elevation is relatively low, the highest point in the near vicinity being only 200 meters above sea level, compared with the 384 meters of the Villa Aldobrandini at Frascati, to choose a typical Renaissance *Tusculanum*, for example.<sup>23</sup> Even now there are few modern residences near the spring, and within a radius of a half mile I have been able to discover definite traces of but a single ancient villa, and, at just that distance, doubtful traces of another, neither of them occupying a site at all imposing.<sup>24</sup> I find it hard to believe that a villa as magnificent as that of Lucullus could have existed in this area, later to disappear so completely that it can not in modern times be even traced. Quite large structures, to be sure, have disappeared in Rome since the Renaissance, but here in the open Campagna great buildings have not been erected and it is difficult to see for what purpose anyone would wilfully destroy bulky antiquities, except to gain material for building operations.

We must examine Holste's identification of the villa. He says that it was "*sub Burgetto ad sinistram viae Latinae*" and that the remains he saw were about 700 paces from the spring. I take it that he means on the left as one goes from Rome, for both he and Frontinus locate the spring with this orientation. Unfortunately, his details are inconsistent. If the ruins were on the left, or northern side of the Latina, they must have been more than a full Roman mile from the spring. While there are a number of villa sites within his 700 feet, all of them also *sub Burgetto*,

<sup>20</sup> The same conclusion was reached independently, it would seem, by Father Angelo Secchi. See Lanciani, *Comentarii* 294: G. Tomassetti, *La Via Latina nel Medio Evo*, Rome, 1886, p. 84.

<sup>21</sup> *PBSR*, 5, 1910, p. 222, repeated in English in *Aqueducts*, pp. 159-161.

<sup>22</sup> The Castello Savelli, or Borghetto, lies athwart the Via Latina almost at the eleventh milestone. Le Murene here represents Villa Senni, not the modern Casal Morena at the ninth milestone. Centroni is really villa 35, a magnificent establishment, but one that had ample land about it.

<sup>23</sup> Elevations from the *Carta d'Italia* of the *Istituto Geografico Militare*, fol. 150.

<sup>24</sup> Indicated on my map (*History*, fig. 47) but unnumbered, as I believe them outside the *ager Tusculanus*.



i.e. downhill from the *castello*, they are all on the right side of the Via Latina and also of its modern counterpart, the Via Anagnina, which here runs a little south of the Latina.<sup>35</sup> The remains which Holste saw, I believe, were those of villa 68 or 70, since their ruins would satisfy all of the requirements save that of distance, and Holste probably made no exact measurement. In addition, it should be noted that he mentions no positive evidence, epigraphic or otherwise, for assigning the villa to Lucullus. His view rests only on the supposed relationship of its site to the spring, a faulty relationship at best. Moreover, these sites would not satisfy the requirement of a large villa on a small property.

There is still another difficulty, namely that near the spring there has been found no trace of a monumental tomb, for we know that when the people wished to bury Lucullus in the Campus Martius, his brother Marcus persuaded them to permit the interment to be made on the Tusculan estate.<sup>36</sup> Unlike a large villa, such a tomb might have disappeared, for it would have been much smaller and we know of many tombs which have been seen in recent centuries and afterwards disappeared without a trace, but reasons which will appear later make it unwise to adopt such a hypothesis until all possibilities are exhausted.

These difficulties have led me to subject the text of Frontinus to a more careful scrutiny, and to suggest two interpretations of his words that may help us out of our difficulties. The first presupposes that the text as quoted is correct. It happens that the site of the Sorgente Preziosa can not have been very far from the boundaries on this side of the *ager Tusculanus*. Indeed, for reasons which then seemed good to me,<sup>37</sup> I limited my work on Tusculum to a region bounded in this direction by the marrana Marciana, a stream which runs northwest from Ponte degli Squarciarelli, traversing the gorge below the Badia di Grottaferrata, and on through the Valle Marciana north of the spring. If this line be correct, then the spring lies outside the *ager Tusculanus*, but the whole of the valley may have been Tusculan. Frontinus would thus be saying that the *Tepula* was brought from Lucullus' estate, which in the opinion of some, was in the *ager Tusculanus*, but that in the belief of others, it was not. Every other *testimonium* concerning this villa, however, assumes without hesitation that its site was Tusculan. As this is unsatisfactory and since boundaries in Frontinus' time must have lost much of their earlier significance, I reject this interpretation of the passage, particularly since it does not solve many of the difficulties mentioned.

The other interpretation assumes that something is wrong with Frontinus' text. I am satisfied that the *codex Cassinensis* has been correctly read by the editors as *ex agro Luculano*, although the initial letters of the name are not clearly and unmistakably *lu*. At least they are not good examples of these letters as they occur elsewhere in the same script, but resemble rather, as has been suggested to me by Professor J. B. Titchener, the abbreviation *vz* for *videlicet*. Yet they are as imperfect if meant to be *vz* as if for *lu*, and I therefore accept the reading *Luculano*, especially since I find *ex agro videlicet Culano* difficult to explain. Nor can they be a misreading

<sup>35</sup> Villas 90, 91, 105-107, all relatively unimportant sites.

<sup>36</sup> Plut. *Luc.* 43. B. Götze, *Ein römisches Rundgrab in Falerii*, Stuttgart, 1939, p. 15, note 71, refers also to Mart. 7, 3, 5, an error for 8, 3, 5, and to 10, 2, 9, which mentions only a tomb of Messalla.

<sup>37</sup> *History*, pp. 156-160.



made by the scribe of *C* of the words *ex agro Tusculano*, since *quem quidam Tusculanum credunt* immediately follows. What I believe Frontinus wrote is rather this: *aquam quae vocatur Tepula ex agro Tusculano Romam et in Capitolium adducendam curaverunt*. Influenced by *in agro Luculano* or *Lucullano*—it matters not which—of the preceding passage, a scribe who produced one of the ancestors of *C* misread an illegible *Tusculano* and wrote *Luculano* instead. This would involve only a change of *t* to *l* and the omission of *s*. The scribe who did this could not have been the one who made *C*, for the relative clause would then be unexplained. That was added later as a marginal gloss by some one who had a copy of the *De Aquis* reading *ex agro Luculano Romam* etc. Such a person may have been one of Frontinus' successors as *praefectus aquarum*, but he need not have been better informed about the aqueducts than any intelligent reader of the statements immediately following and in the next chapter. There it is abundantly clear that the tenth milestone of the Via Latina is certainly near the *ager Tusculanus*—in it, in fact, though Frontinus does not explicitly say so. In a later copy, perhaps in *C* itself, the scribe inserted the marginal gloss as an interpolation.

There are two advantages in this reading of the text: (1) the coincidence is removed, and (2) the difficulties of finding the villa of Lucullus near the spring are avoided; while as a by-product the entire Valle Marciana is shown to be *in agro Tusculano*, but the statement of Frontinus really gives us no help in locating the villa. Fortunately, we are not without still another clue that may prove fruitful in our search, and that is the approach from the point of view of the tomb.

Within the *ager Tusculanus* there have survived to our own day two tombs, both associated with Lucullus. The first of these, known locally as "Sepolcro di Lucullo,"<sup>38</sup> is at Frascati, on the *piazza* of the same name, a modest square on the southeast edge of the city, at the head of the street which leads from the Piazza del Duomo to the right of the cathedral façade. The tomb stood on the south side of the important *deverticulum* which passed this point on its way to Tusculum from the tenth milestone of the Via Latina,<sup>39</sup> the ancient road here coinciding with the modern path to Villa Ruffinella. The remains are incorporated into a modern house, out of which bulge the picturesque masses of concrete forming the tomb's core. Mattei<sup>40</sup> states that in 1598 (misprint for 1698, as the cathedral was built about 1700) the tomb was despoiled of its decorations for the building of a new cathedral, but that the better pieces were taken to Rome "*da diversi Cavalieri Romani . . . per adornarne le loro Gallerie*." Much the same story is told by Giovanni Antonio Pallotta,<sup>41</sup> who also gives the detail that the pieces taken to Rome were of very fine marble, among them statues.

Mattei gives a rough woodcut of the tomb as it looked in his time, and this is copied by a better draughtsman in Vulpius' account.<sup>42</sup> Angelini and Fea publish a

<sup>38</sup> *History*, p. 431, no. 24.

<sup>39</sup> *Ibid.*, p. 165 f.

<sup>40</sup> D. B. Mattei, *Memorie Istoriche dell' Antico Tuscolo oggi Frascati*, Rome, 1711, p. 62, reprinted in a Latin version by S. Haverkamp in Burmann's edition of J. G. Graevius' *Thesaur. Ant. & Histor. Ital.*, Leyden, 1723.

<sup>41</sup> Quoted by Fra Domenico of Frascati in a MS. cited by Lanciani, *BCAR.* 12, 1884, p. 211.

<sup>42</sup> J. R. Vulpius, *Vetus Latium Profanum*, Rome, 1742, 8, 80, tab. 2, no. 5.

fairly accurate drawing of the building,<sup>43</sup> but that of Canina is certainly wrong in showing the exterior square with piers at the angles.<sup>44</sup> The construction is of mediocre concrete, with aggregate of *selce*, and in the center is a chamber formed like a Latin cross, faced with reticulate of *selce* and brick quoins. My description of the interior is based on Ashby's accounts, as I was unable to visit the rooms, but the fact that the veneer is described as marble, coupled with the presence of brick quoins in the interior, makes it seem probable that the date of the tomb is imperial. In any case, we have no positive evidence that this was Lucullus' tomb, and therefore with Nibby<sup>45</sup> must reject the identification, which really rests only on the uncritical extravagances of local patriotism. It must be admitted that the tomb stands very close to a very important *Tusculanum* (no. 59), the great imperial establishment which underlies so much of Frascati, as well as near several others (nos. 81-84). To be sure, all of the evidence for dating villa 59 points to the first century A.D., the known proprietors being successively Passienus Crispus, Agrippina, Nero, and Domitian, but the site must also have been occupied in republican times.<sup>46</sup> On the other hand, the tomb is on the opposite side of the *deverticulum* from villa 59, which will hardly satisfy also the requirement of a large building on a small property, for here there was extensive ground, as witnesses the subsequent growth of Frascati after the destruction of Tusculum in 1191 A.D.

Similarly, the name of Lucullus has been attributed to the great tomb known locally, from the family that has owned it for upwards of sixty years, as "Torrione di Micara." The structure was built on the north side of the same important *deverticulum* on which the other tomb was built,<sup>47</sup> at precisely the spot where an alternative route diverges to the northeast to join the first farther on at Capo Croce outside Frascati. The modern lane passes the tomb on the north, but the ancient road ran to the south, so the tomb stood in the intersection of the two roads, and doubtless made an imposing appearance to travellers coming from the direction of Rome.

In mediaeval times the building was made into a fortress, as were so many ancient tombs, Guelphic battlements being added. Eschinardi<sup>48</sup> calls the structure the "Isileo nella vigna Rocci" and says that for a time it served as a novitiate for the Badia di Grottaferrata. A plan was published by Uggeri<sup>49</sup> and repeated by Angelini and Fea<sup>50</sup> and by Canina.<sup>51</sup> Mattei (108) prints a rough figure which is probably meant to represent this tomb, as he mentions the building on the next page. In it the battlements are only crudely indicated, if at all, and on top of them something appears which may be meant for thatching, but this is also far from clear. The bat-

<sup>43</sup> G. Angelini and A. Fea, *I Monumenti più Insigni del Lazio*, etc., Rome, 1828, 2: Via Latina, tav. 7. Most copies of this rare work lack the second volume.

<sup>44</sup> L. Canina, *Descrizione dell' Antico Tuscolo*, Rome, 1841, p. 135, tav. 26 = *History*, fig. 138, and view, tav. 27 = Canina, *Edifici Antichi dei Contorni di Roma*, Rome, 1856, 6, tav. 83 = *History*, fig. 145.

<sup>45</sup> A. Nibby, *Analisi Storico-Topografico-Antiquaria della Carta de' Dintorni di Roma*, Rome, 1842, 3, p. 597, cited as *Analisi*.

<sup>46</sup> *History*, pp. 250-260. Villa 84 will be discussed later.

<sup>47</sup> *Ibid.*, p. 169.

<sup>48</sup> F. Eschinardi, *Esposizione della Carta Topografica Cingolana dell' Agro Romano*, Rome, 1696, p. 369, also edited by R. Venuti, *Descrizione di Roma e dell' Agro Romano*, Rome, 1750, p. 275.

<sup>49</sup> A. Uggeri, *Journées Pittoresques des Edifices de Rome Ancienne*, Rome, 1824: *Journée de Tusculum*, tav. 5.

<sup>50</sup> Angelini and Fea, 2, tav. 4.

<sup>51</sup> Canina, *Descrizione* tav. 26 = *Edifici Antichi* 6, tav. 82 = *History*, fig. 138.

lements could, of course, not have been added after Mattei's time (1711). A photograph taken from the south, with a telephotographic lens,<sup>52</sup> is published by Ashby, while Grossi-Gondi publishes three views of the exterior and one of the interior.<sup>53</sup>

The construction is of cut *peperino*, badly weathered, the blocks being 0.59 meters high, rusticated and with false joints. Nibby's measurements are: total height 8.43 m., base to plinth 2.37 m., plinth 0.72 m., plinth to cornice 4.74 m., and cornice 0.60 m.<sup>54</sup> The inside diameter is 26.68 m. and the interior is empty except for two recesses and three chambers on the southwest side, now enclosed in a modern farm building which has been locked whenever I have visited the site. These are, according to Ashby,<sup>55</sup> of brickwork with a corridor in front of them, and in the corridor is a stairway leading to the terrace above. The chambers follow the curve of the exterior, but the northeast wall is straighter. The foundation of the tomb is circular, except to the southwest where it is rectangular. This was on the side towards which the traveller from Rome would approach, but, curiously enough, the entrance is not there, but on the north, and not, it would seem, oriented in relation to either highway. When the building came to be used as a fortress, the position of the entrance doubtless caused a more practical relocation of the roads, so that they now approach directly to the door. On the southwest side of the exterior is a plain block of marble, which I believe was placed there in antiquity and may have borne a painted inscription. It is too high for measurement, but it is the same height as the blocks next to it and about 2.50 m. long, i.e. approximately the same size as the *peperino* in which it is set. It faces the ancient highway and an inscription on it could have been seen from the road. A similar block of marble was inserted into the wall of the tomb of Caecilia Metella on the Via Appia.<sup>56</sup> Other parallels between the two tombs are striking. Her tomb, built of travertine and *sperone* (*lapis Gabinus*), with inner chambers of brick, is dated by Frank not earlier than 10 B.C., on the basis of the presence of bricks, but he recognizes a chronological difficulty in this date, since Caecilia Metella,<sup>57</sup> the wife of M. Licinius Crassus, would have been at least eighty years of age at this time. This makes him think that the erection of the tomb may have taken some time after her death. If, however, he is wrong about the date of the brickwork, then her tomb may be earlier.

On this point we get help from Götze's recent study<sup>58</sup> of the circular tomb as an architectural form. He limits the vogue of this type to the period extending from the middle of the first century B.C. to some time before the end of the same century, the earliest examples being the tomb of Caecilia Metella and the Torrione di Micara. Others of the group include the tombs of Munatius Plancus at Gaeta, of the Plautii at Ponte Lucano on the Via Tiburtina, of the Lollii Urbici at Constantine in Africa,

<sup>52</sup> PBSR. 4, 1907, pl. 14, fig. 1 = *History*, fig. 139.

<sup>53</sup> Grossi-Gondi, tav. 1 (see fig. 1), fig. on title, heading of p. iii, tav. 5 (see fig. 2). See also others in R. Lanciani, *Wanderings in the Roman Campagna*, London, 1909, p. 293; G. Biasiotti and G. Tomasetti, *Tusculana*, Rome, 1912, p. 7. Figs. 3-4 show the exterior.

<sup>54</sup> Nibby, *Analisi* 3, 356; also his *Viaggio Antiquario in alcune città del Lazio: Osservazioni su Tuscolo*, i.e. MS. notes in the possession of Ashby.

<sup>55</sup> PBSR. 4, 1907, p. 134.

<sup>56</sup> CIL. 6, 1274; T. Frank, *Roman Buildings of the Republic*, Rome, 1924, p. 144 f.

<sup>57</sup> See RE. 25, col. 268 f., no. 56 (Münzer); RE. 3, col. 1235, no. 136.

<sup>58</sup> B. Götze, *Ein römisches Rundgrab in Falerii; Baugeschichte des römischen Adels- und Kaisergrabes; Grabbau und Bauplanung des Augustus*, Stuttgart, 1939, reviewed in CW. 34, 1940, p. 44 f.

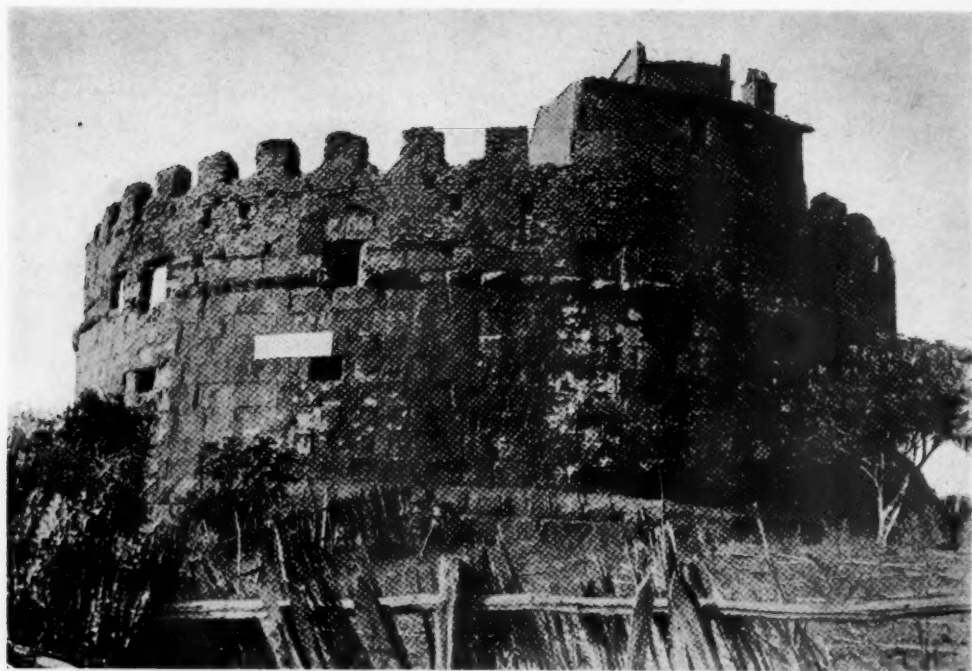


FIG. 1.—TORRIONE DI MICARA FROM THE SOUTHWEST (AFTER GROSSI-GONDI)

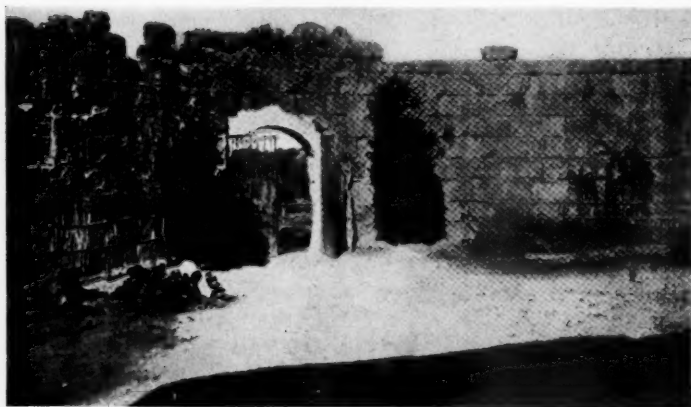


FIG. 2.—TORRIONE DI MICARA, INTERIOR (AFTER GROSSI-GONDI)



FIG. 3.—TORRIONE DI MICARA, DETAIL OF EXTERIOR (AUTHOR'S PHOTOGRAPH)



and unidentified examples at Casal Rotondo on the Via Appia (fifth milestone), at Vicovaro and the ninth kilometer-stone of the Via Labicana, at Attaleia in Pamphylia and two at Bieda (15).

The tomb of Caecilia Metella he would date (10, 15) near the middle of the century, much earlier than Frank. Before the end of the century, this type of tomb, the use of which was restricted to the highest nobility, was abandoned, probably because of higher building costs, and also the end of rivalry between the great families of the period. Though Götze has apparently made no thorough study of the evidence for the identification of this tomb as that of Lucullus — he accepts it with some hesitancy — on stylistic grounds the *torrione* fits extremely well the date necessary for the tomb of Lucullus, a building in which an attempt was made to surpass Sulla's mausoleum in the Campus Martius (19). Lucullus died about 56 B.C., but this tomb may well have been built some years later. It certainly could not have been erected during the lifetime of the conqueror, or the people of Rome would have known in advance that he was to be buried at his *Tusculanum*. Since this is the only tomb of this type anywhere in the *ager Tusculanus*, I feel certain that we can now state with confidence that the traditional attribution is correct, and I consequently abandon my former skepticism on this point.<sup>59</sup>

Having established the identity of Lucullus' tomb, we may proceed to see whether this fact will help us to locate the site of the villa as well; but first, however, we must examine the various sites that have been suggested by others in the past.

As we have seen, Holste, on the occasion of his visit in 1649, supposed that he saw the villa, identifying it, as I understand his words, with the remains of either villa 68 or 70, but this view rests only on the belief, probably mistaken, that the Sorgente Preziosa was on the Lucullan property. In addition to the objections mentioned (p. 330), we may now safely say that these villas are too far from the tomb to permit serious consideration. The actual distance by the ancient road is approximately one Roman mile, and there are also two deep ravines and the sites of villas 71–72 between.

No evidence exists for the view which I find adopted by John Breval, an English traveller of two centuries ago, that the Villa Aldobrandini is the site of Lucullus' *Tusculanum*, unless Breval derives his identification from the first tomb mentioned above, which stood rather near that villa.<sup>60</sup> Breval assumes that it was from this villa that the Aqua Virgo got its water, citing Pliny 30, 3, which has nothing to say on the subject. He is clearly referring to the statement of Frontinus, already discussed, but wrongly attributes it to the *Tusculanum* of Lucullus. Breval can hardly be referring confusedly to the view of Kircher, the only modern writer whom he cites, that the Lucullan villa occupied the site of the Renaissance Villa Torlonia, since I know of no reason to believe that the Aldobrandini or Pamfili families ever owned it.

The Villa Torlonia, also called Caravilla,<sup>61</sup> Galli, Borghese, Altemps, Ludovisi,

<sup>59</sup> *History*, p. 428. See also the skepticism expressed *ibid.*, 405 f. on reservoir 65 (below p. 339).

<sup>60</sup> J. Breval, *Remarks on Several Parts of Europe*, etc., London, 1738, I, p. 81, note n.

<sup>61</sup> R. Lanciani, *Storia degli Scavi*, Rome, 1908, 3, pp. 50–53; *PBSR*, 5, 1910, p. 249; *History*, pp. 300–304. This villa was not part of villa 59, as some have thought.



Poli-Conti, and Sforza-Cesarini, lies on the south side of the town of Frascati, and while little ancient material is now to be seen on the spot, what little there is, together with much that has been seen in the past, justifies the belief that this was a large and important villa in both republican and imperial times. The identification was first made by Kircher,<sup>62</sup> and accepted by Mattei (64-66), Vulpus (117 f.), Lanciani,<sup>63</sup> Grossi-Gondi (113-141), Benigni,<sup>64</sup> and perhaps also by Ashby.<sup>65</sup> Their view rests on Kircher's statement that "*altera villa fuit in eo loco, ubi modò hortus Ludovisiorum est, uti ex inscriptionibus quorundam lapidum ibidem inventorum hisce verbis: L. LUCUL. LUC. F.*" (73). Is he speaking of a single inscription in fragments or of more than one copy? Lanciani<sup>66</sup> supposes that Kircher mistakes lead pipes for stones, and this is possible, as Ashby says, but Dessau (*CIL.* 14, 209\*) rejects this inscription as spurious, and, indeed, if the inscription were on stone, as Kircher says it was, one would expect the name in fuller form. This *titulus* is of a type more appropriate to lead or bricks, but both are probably ruled out by the date. If authentic, the provenance being correct, then this inscription would be a *testimonium* worthy of respect that the villa was Lucullus' *Tusculanum*. As to the provenance, confirmation appears to be found in a letter of Annibale Caro, a former owner, written on September 14, 1565, to an unnamed friend, that his villa was "*nel loco proprio di Lucullo chè così mi hanno chiarito li vestigi degli grandi monumenti, e di alcune lettere che vi ho trovato.*"<sup>67</sup> Caro had also written to a certain Govon Bertano on April fifth of the same year in similar vein. This may, as Lanciani and Grossi-Gondi maintain, refer to the discovery of Kircher's inscription, and, if so, is more than a century earlier.

Grossi-Gondi calls attention to two inscriptions (*CIL.* 14, 2721-2722): *P. Licinius P. l. Philonicus* and *P. Licinius P. l. Demetrius patrōno (fecit?)*, which were seen by Fabretti "*in villa nobilium de Rocciis*" and according to De Rossi "*extant in eodem loco in villa nunc Muti parieti aedium adfixa.*" Villa Muti, the site of ancient villa 81, stands southwest of this site on the other side of a ravine, but the stones have disappeared. They may, as Ashby says, have easily been found at the villa of Lucullus, but we really have no evidence that their original discovery took place where they have been seen (see below p. 339). Whether inscriptions relating to the freedman of a P. Licinius really reflect Lucullus, as Grossi-Gondi wishes to believe, is another matter.

This identification rests, then, upon what is at best the confused testimony of Kircher, supported in part by the statements of Caro, but the translator of the *Aeneid* was admittedly interested in the prestige of his property and may not have known the truth. It is, therefore, better to accept the judgment of the master of Tusculan epigraphy, Dessau, that the inscription is spurious, particularly since the

<sup>62</sup> A. Kircher, *Latium id est, nova & parallela Latii tum veteris tum novi descriptio*, Amsterdam, 1671, p. 73.

<sup>63</sup> Lanciani, *Comentarii*, p. 500, note 580; *Storia degli Scavi* 3, pp. 50-53.

<sup>64</sup> U. Benigni, *Cath. Encycl.* s.v. *Frascati*.

<sup>65</sup> *PBSR.* 5, 1910, pp. 247-250 and 302; see also *History*, p. 304, note 1. J. H. Westphal, *Die römische Kampagne*, Berlin, 1829, p. 33, places the villa at Grottaferrata and E. C. Knight, the reputed author of the anonymous work, *A Description of Latium*, London, 1805, pp. 142-150, locates it between Monte Porzio and Grottaferrata, a very wide area.

<sup>66</sup> Lanciani, *Comentarii*, p. 500, note 580.

<sup>67</sup> *Lettere inedite di A. Caro, con note di Mazzuchelli*, Milano, 1830, 3, p. 117.

site is too far from the tomb in any case. The distance is not less than one and one-half Roman miles, with a very deep ravine and the sites of six villas (nos. 75-77, 81-82, 131) intervening.

Much nearer the tomb, however, indeed within two-thirds of a Roman mile, stood three villas, two on the southeast of the ancient highway east of the tomb, and one on the northeast. The last is no. 131 at Casale Bevilacqua<sup>68</sup> and has a remarkable polygonal retaining wall on the northeast, but not much else is to be seen there. On the basis of the relative unimportance of this villa, we may safely reject it.

The same is true also of villa 75 which stood in a place called Luogo Nuovo, low down on the slope of the hill on the opposite side of the same road, about a quarter of a mile from the tomb. The platform, of good size, is now almost devoid of remains, the results of the excavations of Pietro Santovetti in October, 1850, being unknown.<sup>69</sup> Here, again, the comparative unimportance of the site permits us to reject it with confidence.

This leaves to be considered only villa 76 and in this case we find what we seek, the remains of a magnificent villa of considerable size and richness. The site chosen is known locally as Fontana Piscaro (perhaps a reflection of the ancient *piscina* mentioned below?), and when I visited it in 1931, it belonged to Signora Alessandro Carletti of Frascati, but it has also been called the Vigna del Seminario, Villa Roccia, and Vigna Varese.<sup>70</sup> Kircher (72-76) was the first to speak of it in print. He gives a very faulty plan, which hardly does more than grasp the general features, if that much can be said for it, and this is reproduced by Vulpus.<sup>71</sup> Kircher also prints two views of what he calls "*Grotte di Lucullo, o, il Centrone*," but these are nothing more than views of the Severan palace on the Palatine! Ashby<sup>72</sup> discusses the two views in connection with the villa of Centroni (no. 35), but the proximity of these plates to the plan of the villa now under discussion and also Kircher's view of a reservoir to be mentioned later, make me feel certain that Kircher is passing them off as a representation of this villa, with the additional slip of inconsistently labelling them also as "*Centrone*."

In Kircher's time the vigna belonged to the Varese, or Roccia family, and was part of the property of the Villa Muti, but later fell to the Seminary at Frascati. Canina made a fresh plan of the remains which he gave to Uggeri to publish (tab. 6) and this was repeated by Angelini and Fea (tav. 5), while later Canina published it himself.<sup>73</sup> Its great faults are (1) that it completely fails to show several of the substructions which must have been clearly visible in Canina's time, and (2) it shows arbitrary reconstructions of the type characteristic of all Canina's work, as Ashby suspected. By penetrating into rooms filled almost completely with earth at points

<sup>68</sup> PBSR. 5, 1910, 245, pl. 25 = *History* fig. 125; Nibby, *Analisi*, 3.354; *Viaggio Antiquario* 1.76 and plan 108; E. Dodwell, *Pelagic Remains in Greece and Italy*, London, 1834, pl. 121; *History* 366 f.

<sup>69</sup> *History*, p. 289; PBSR. 4, 1907, p. 135 and *addenda ad loc.* in Ashby's possession.

<sup>70</sup> *History*, pp. 289-293.

<sup>71</sup> Vulpus 120, 128, tav. 4 = tav. 4 of Anon., *Veteris Latii Antiqua Vestigia . . . praecipue Tyburtina, Tusculana et Setina*, Rome, 1751, reprinted by R. Venuti with slightly different title, Rome, 1776.

<sup>72</sup> PBSR. 4, 1907, p. 121.

<sup>73</sup> Canina, *Descrizione*, p. 137, note 31, tav. 28 = *History*, fig. 78, but Fea labels the plan with his own name.



FIG. 4.—TORRIONE DI MICARA, DETAIL  
OF EXTERIOR (AUTHOR'S PHOTOGRAPH)



FIG. 5.—VILLA 76, LATER CRYPTOPORTICUS  
(AUTHOR'S PHOTOGRAPH)



FIG. 6.—VILLA 76, EXTERNAL RETAINING  
WALL ON SOUTHWEST (AUTHOR'S PHOTOGRAPH)

where Canina's plan shows extensive details, I satisfied myself that Ashby's suspicions were wholly justified.

The plan made by Ashby and Newton <sup>74</sup> I found accurate in every detail, so far as I was able to check it. Little of the upper part of the villa remained for them to plot and by the time of my own investigations even that had disappeared beneath vegetation. The substructions, however, show this villa to have been one of the largest and most complicated in the region of Tusculum. The total measurements, 585 by 560 feet, reveal the immense size, while the actual substructions which held up the platform measure 585 by 220 feet. Two distinct periods of construction may be distinguished, each possessing a cryptoporticus, the later being unusually extensive and magnificent (see fig. 5. Fig. 6 shows the exterior façade on the southwest). In some of the underground rooms I noticed traces of wall paintings. In any case, we have here a villa which answers all of the requirements of the data given by the literary *testimonia*. No aviary has been found, but this would hardly be seen without excavation. Villa 75 is, to be sure, nearer the tomb, but villa 76 admirably fits the requirement of a building too large for its site. The villa extended on the northeast to a point very close to the ancient road and on the opposite side to a ravine of considerable depth. It would have been impossible to extend the villa much farther in either direction, while to the southeast the ground rises sharply towards Villa Muti. The other remaining side faces the tomb, but between the villa and the tomb stands a circular open reservoir 45.70 meters in diameter. Ashby saw it when it was six feet deep, but when I examined it, the depth was only half that. If the measurement of the diameter is accurate to the third decimal, and the construction a perfect circle, then when filled to a depth of six feet, the pool would have held more than 792,000 gallons. It has often been published, first by Kircher whose view is entitled "*Sub villa Varesiana piscina sive Colymphydra Lucullani sub hac forma spectatur*," and shows the outlet and stairway no longer visible, if they ever existed. <sup>75</sup> Breval is probably referring to this *piscina*, when he says: "Part of the vast ruins of *Lucullus's* Amphitheatre and Palace are yet to be seen between *Frescati* [sic] and *Marino*, at a place called *Grotta di Lucullo*." How Breval, who could certainly read Latin, could have misread Kircher's caption is difficult to understand, but the location given by him, the phrase *Grotta di Lucullo*, and the nature of Kircher's view, make me think it certain that Breval got his information from Kircher's book, which he cites, though he appears to have visited the region. Because of the position of the *piscina* with reference to the villa, I believe that it formed part of the same property. Perhaps fish were sold from it by Cato.

The inscriptions of the two freedmen of P. Licinius, already mentioned, were seen either at Villa Muti, one time part of the same property as villa 76, or "*in villa nobilium de Rocciis*" which may also be this site called Vigna Roccia. Therefore, whatever force their discovery has for identifying the villa of Lucullus, it may point to the site under discussion, rather than to Villa Muti.

If, indeed, the testimony of Kircher and Caro is, though garbled, truthful and significant, the inscription may have been on lead pipe as Lanciani thought. Pipes

<sup>74</sup> PBSR. 4, 1907, pl. 15 = *History*, fig. 79.

<sup>75</sup> Kircher, p. 74; Vulpius, p. 128. f.; tav. 5 = Anon., *Veteris Latii Antiqua Vestigia*, tav. 5.

for Lucullus' villa would naturally have been placed up-hill from his villa, and as Villa Torlonia is considerably higher than villa 76, water could have been brought from the former to the latter. On the other hand, all extant datable lead pipes found at Tusculum or elsewhere are imperial,<sup>76</sup> the earliest Tusculan example being dated in the reign of Tiberius, so Kircher's inscription would have been by far the earliest example known, if authentic. I therefore prefer to reject it.

In any case, the nature of the remains of villa 76 and the proximity to the tomb make me now certain that at last we are able to identify the site of Lucullus' *Tusculanum* with confidence, as well as the tomb. Each structure serves as confirmation of the other, and, since no records of excavations have ever been reported for either, both sites would well repay excavation at some future date. The villa then is the earliest *Tusculanum*, the owner of which can be known with any probability of correctness. To Kircher belongs the credit for the first identification, for, though he went astray in identifying the site as the Villa Torlonia, in his captions to his three views he definitely associated the *piscina* and the villa with the great name of Lucullus.

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<sup>76</sup> I have discussed the evidence for this statement in a paper: *Miscellanea Tusculana*, part I, read by title at a meeting of the American Philological Association in 1941 (see *TAPA*.72).



## OBSERVATIONS ON SEVENTH-CENTURY SCULPTURE

THE object of the present study is to examine the fundamental characteristics of monumental sculpture of the seventh century in the three politically most important regions of the Mediterranean world: Assyria, Egypt, and Greece. It is not my intention to enter in detail upon the problems of interpretation of the meager evidence that to some has indicated the existence of some form of Greek monumental sculpture as early as the eighth century. Nevertheless, it seems essential to begin with a statement of my own conclusions on this subject, based on material at present available. Hence the following two paragraphs represent simple opinion on matters not yet susceptible of proof. They are presented only in order that my position in what follows may be clear.

The Greeks began to make monumental sculpture in stone in the seventh century B.C. How long before that they may have been making sculpture in wood is not known, but among the earliest works of which we have record there were some of wood. Efforts to recapture the appearance of the cult images of the Geometric period have been hampered by the fact that it is impossible to form any conception of scale from representations of supposed cult scenes, and it is very difficult to tell whether the figure taken as divine is intended as an image or as the god himself. If one judges by the series of terracotta, ivory, and bronze figurines, an observation of the stylistic development of this material (now moderately well established from the latter part of the eighth century on) leads to the conclusion that the first style containing intimations of monumentality was also evolved in the course of the seventh century.

Although the Mycenaeans made sculpture in a scale approaching that of life, it seems improbable that any such monuments survived the Geometric period. Furthermore, it is yet to be demonstrated that at any site there was a Mycenaean shrine in continuous use as a religious center into the archaic period. Archaic shrines are in numerous instances established upon the ruins of Bronze-Age palaces, but nowhere have we a Mycenaean religious center of which the monumental cult image (supposing such to have existed) might have survived to become known to early archaic sculptors. We must presume that the Greeks created their sculpture anew in the course of the seventh century.<sup>1</sup>

<sup>1</sup>On these matters I must refer the reader to the important contributions of V. Müller ("The Beginnings of Monumental Sculpture in Greece," *MMS.* v, p. 157 f.); A. Gotsmich (*Probleme der frühgriechischen Plastik*) and Deonna. (The references are gathered together in Deonna's two-volume work entitled *Dédale*). It will be observed that my interpretation differs in several essential respects from those offered in these learned publications. I wish only to make the following remarks in this regard: 1. The terracotta sequence proposed by Blinkenberg ("L'Image d'Athana Lindia," *Kgl. Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser* i, No. 2, 1917) is not persuasive. It is far from proven that armless images were used by the Minoans. 2. Considering its size (about 40 feet), I do not believe that the Apollo of Amyclae can be dated typologically. 3. The supposed contrast between the Smilis image and its predecessor at Samos is very similar to that which we know existed between sculpture of about 600 and that of the middle of the seventh century, and, since Smilis was called a contemporary of Daedalus, I would refer the reader to Miss Richter's illuminating suggestion concerning the latter sculptor (*MMS.* v, p. 48). (I do not know how to interpret the object found at Samos which Buschor, *AM.* 1933, p. 158, considers a very early statue base). 4. It is impossible to date such

Among the powerful peoples of the Eastern Mediterranean known to the Greeks, the seventh century was indeed an extraordinary period. Throughout most of it Assyria was by all odds the dominant political factor. Perhaps largely as a result of the policy of calculated frightfulness of Ashurnasirpal, a policy concerning which he has left so many blood-curdling boasts, this small nation had become a mighty empire. At the beginning of the seventh century, however, the lean, epic years were already in the past, and success had brought a certain measure of relaxation of the severity of the old life. This may be read most clearly in the transformation that came over Assyrian relief sculpture from the ninth to the seventh centuries, the resolution of the heroic into the episodic and sentimental. It is true that Ashurbanipal conquered Egypt, as Esarhaddon had done before him, but from his own accounts one sees that it was not a very strenuous undertaking. Almost no attempt was made to maintain any real control in Egypt, which quickly ceased to look to Assyria for leadership. It is true that Ashurbanipal followed the Assyrian tradition in lion-hunting, but the sculptural records reveal more sympathy with the beasts than dramatization of the heroic exploit. The key to the situation is in the fact that the king is himself educated as a scribe. In this he takes as great pride as in any accomplishment. With indefatigable energy he sends around the country and into the distant provinces to seek out ancient written documents that they might be transcribed and included in his vast royal library.<sup>2</sup> A scholar with an archaeological bent, he has experienced and complained of the difficulties that many have known since his day of deciphering the early scripts of Babylonia. Since the last independent cities of the so-called Syro-Hittite group had fallen into Assyrian hands before 700, there were several places where Greek colonists were coming into direct contact with the Assyrians. If the characteristics of the king permeated his people, the Greeks must have found them puzzling in the extreme. How would they understand this concern with the past and the documents of a remote ancestry? That these characteristics were not limited to the person of the king, but were rather in the atmosphere of the period, would seem to be indicated by their reappearance in the next century in a royal personage of a different line, Nabonidus.

It was in the reign of Psamtik I that the Greeks really came to know Egypt. Herodotus (ii, 154) remarks that from the date of the settlement of "the camps" the Greeks were in constant communication with Egypt, and that "we have accurate knowledge of the events of Egyptian history from the reign of Psamtik, but before his time no foreigners had ever taken up their residence in that land." The discovery of foundation deposits at Daphnae,<sup>3</sup> indicating that the fort was founded

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an isolated object as the Arcadian figure published by Miss Burr (*AJA.* 1927, p. 169 f.). It looks as much like the Mantiklos Apollo as anything else. 5. I am of the opinion that both Eleusis and Amyclae became shrines in the archaic period, after having been dwelling places in Mycenaean times (Grace, *Archaic Sculpture in Boeotia*, appendix. Also *AJA.* 1940, p. 105). Concerning Samothrace I confess to a greater uncertainty. Despite these differences, I wish to acknowledge a deep indebtedness to these authors, particularly to Professor Müller, without the help of whose monumental work, *Frühe Plastik in Griechenland und Vorderasien* any student of this period would be grievously hampered. Nor can there be any pride of opinion in these matters of extreme uncertainty.

<sup>2</sup> R. Pfeiffer, *State Letters of Assyria*, p. 179, nos. 256-261.

<sup>3</sup> Flinders Petrie, *Nebesheh and Defenneh*, p. 48.

by Psamtik I about 664, agrees well with the statements of Herodotus. In Egypt this period is often called that of the Renaissance, and everywhere the forms and customs of earlier and greater days were consciously imitated in a vigorous effort to reformulate the glories of the past. There is some indication that this archaizing was already begun in the preceding dynasty as a part of the program of the Ethiopian kings to emphasize their rightful succession to the throne, their real participation in the great tradition. It is notable that in Egypt, particularly under the rulers of Saïs, this scholarly archaism was very definitely an instrument of national policy. It was an integral part of the determined nationalist movement which followed upon the successful subjection of the Delta princes to the might (partly subscribed by Greek mercenaries) of the new dynasty. Under its impetus ancient tombs were opened and their sculptures imitated, even written language was affected by a mannered archaism.

Had they not been so useful to the ruling power it is likely that the Greeks would have been even more embarrassed by this nationalist movement than they actually were. Once again one must wonder what all this stupendous antiquity could have meant to the Greeks of the seventh century. Could they accept in all seriousness this Saite culture as the thing which it was trying so desperately hard to be? One might ask of Herodotus how much he believed of what he recorded, for the Persian invasion seems to have made little change in the character of late dynastic Egypt. It is certainly difficult for us to look seriously upon the patrician pretensions of Ankh-f-n-Sekhmet, a high priest in the seventh century, who has left a relief<sup>4</sup> listing his ancestors, all incumbents of the same office, for more than sixty generations. The Greek response to this sort of thing would seem to be well expressed in the inscription scratched on the leg of one of the colossi of Rameses II at Abu Simbel. The inscription was probably cut in 589 during the second expedition of Psamtik II into the South, and it has been read: "Archon, son of Amoibichos; and Axe, son of nobody."<sup>5</sup> These soldiers were the toughies of the period to whom the laborious efforts of scribes must have seemed scarcely human. One is reminded of the amiable custom of the Australian troops of throwing pennies to the court of imposing dignitaries that attends their arrivals in the Middle Eastern ports. Faced with the civilization of ages, the simple, wandering soldier must choose between being enveloped by its ponderous mysteries and treating it as Gilbert and Sullivan treated the Mikado.

If these few remarks have served to remind the reader of some of the peculiar conditions of this period during which the Greeks made a most important step forward in the development of their sculpture, we may turn to a consideration of some of the monuments. The brief suggestion made by Rodenwaldt in a footnote to an article in the *Athenische Mittheilungen*<sup>6</sup> that certain elements of the Greek draped figure of the type of the Artemis of Nicandra were directly dependent upon Assyrian forms, while the Apollo type appeared later as a result of Egyptian in-

<sup>4</sup> Berlin, No. 23673. L. Borchardt, *Mittel zur zeitlichen Festlegung von Punkten der ägyptischen Geschichte*, p. 96, puts considerable confidence in this list and quotes certain modern parallels.

<sup>5</sup> I realize that other interpretations of this inscription have been offered, but I find it difficult to believe in the existence of a man named Oupatos.

<sup>6</sup> *AM.* 1921, p. 34, Anm. 2.

fluence, has met with very considerable opposition. In direct reply Löwy wrote a short article in the same periodical.<sup>7</sup> Denying absolutely the influence of Assyria upon seventh-century Greek sculpture, he yet was inclined to accept as of some

significance the influence of Egypt. This last has been likewise denied by Deonna, the very learned scholar who, more than any other, has concerned himself in many publications with the so-called Apollo statues. In briefest form, the thesis against the attribution of any importance to influence from abroad in the formation of early monumental sculpture in Greece is set forth in a book review in *Die Antike* by R. Heidenreich.<sup>8</sup>

It is unfortunate that in these discussions, in the effort to define the "kantige Wucht," and true originality of early Greek sculpture, so many writers seem to have quite misrepresented the character of Assyrian sculpture. How unfortunate are the adjectives "plump" and "cylindrical," those most frequently used concerning Assyrian statues, may be learned from an examination of the famous statue of Ashurnasirpal in the British Museum. This is the "plank-form" image proper, of which the profile aspect was clearly never intended to be seen (fig. 1). The proportion of its breadth to its depth is very slightly under two to one, while in the case of the Nicandra figure the same proportion is very slightly over two to one.<sup>9</sup>

It is possible that there may be a connection between Assyrian statues of this form and the appearance which the Assyrian temple assumed in its late phase. Layard discovered the Ashurnasirpal in the earth above a large flat slab which had formed the pavement of the sanctuary room of the temple of Bêlit mâti at Nimrud.<sup>10</sup> Unfortunately, the excavation did not really establish either the levels or a very clear plan of this temple, but it can certainly be identified as an example of the "Langhaus" type as defined by Andrae.<sup>11</sup> At the back of the long hall of this type of temple, the end is treated partly as a separate room, divided from the rest by two slightly projecting walls, and regularly raised materially

above the level of the main hall. It is at the rear of this subsidiary room, which is



FIG. 1. — ASHURNASIRPAL II. LONDON.  
BRITISH MUSEUM

<sup>7</sup> *AM.* 1925, p. 28.

<sup>8</sup> *Die Antike*, 1938, p. 349.

<sup>9</sup> These proportions are taken from Müller, *Frühe Plastik*.

<sup>10</sup> *Nineveh and Babylon, Second Expedition*, p. 311.

<sup>11</sup> W. Andrae, *Das Gotteshaus und die Urformen des Bauens im alten Orient*, p. 24.



surely the shrine proper, that is placed the niche which Andrae proposes to identify as the doorway of the magic entrance of the god from his dwelling place on high, on the ziggurat, to the chamber of his appearances in the world of mankind.<sup>12</sup> The functions of temple and of ziggurat seem sometimes confused in these structures, since the shrine may be placed quite high above the level of the outer hall. Because of this, Andrae has questioned whether the shrine invariably contained an image, suggesting the interesting parallel of the temple of Solomon. But, to return to the period which more directly concerns us, there seems to be no doubt in the minds of the recent excavators at Khorsabad that in the late eighth-century temples there the image stood upon the dais against the niche of the sanctuary room.<sup>13</sup>

In certain temples of this late Assyrian form, notably in the small temple of Adad at Khorsabad, the combination of the high elevation of the platform pedestal with the narrowness of the niche-like space in which it stood (in front of the niche proper, which is rather a treatment of the wall surface than an actual space) resulted in the statue presenting a very limited aspect to the people in the temple.<sup>14</sup> That this would enhance the august majesty of the image, as well as the apparent remoteness of the god, is obvious. It has been suggested that a small relief from Babylon, showing a figure in a similar niche-like space with a flight of steps leading up to it, is an illustration of just such a scene.<sup>15</sup>

It remains open to question whether the statue of Ashurnasirpal could have been the cult image in a temple dedicated to Bêlît mâti. No hint is to be derived from the inscription, which is simply a royal formula. But, as the king, it seems possible that he might have been so honored as the earthly representative of the "Lady of the land." On general grounds there is every reason to doubt that any king was worshipped as a god in these regions after the reign of Hammurabi, whose reference to himself as a god in the introduction to his code of laws<sup>16</sup> has been considered a last survival of that divination of royalty practiced particularly by the Third dynasty of Ur. However, because of the divine instrument carried in the king's right hand, Gadd found it necessary to suppose that he is here represented as a deity.<sup>17</sup> Gadd also cited the relief of the same ruler, found by Layard at the doorway of a neighboring temple, before which an altar was originally set up.<sup>18</sup> It must be admitted that this latter piece of evidence could be differently interpreted.

<sup>12</sup> F. Wachtsmuth, *AOF.* xii, 1938, p. 118 f., has recently raised certain arguments against Andrae's general theory. One important point in the latter's thesis is the contrast that has seemed to exist between the primitive form of the "high temple," as it is exemplified in the White Temple at Uruk-Warka and the "Erscheinungs Tempel," on the ground, of which the type primitive example has been the Limestone Temple at the same site. The excavators at Warka have now recognized that the Limestone Temple did not have the form in which it appears in most current plans, that it originally was, like the later Temple C, made up of a duplication of the type called that of the "High Temple," with the two elements placed at right angles to one another. Although the interpretation of the early evidence at Warka is certainly fundamental to any understanding of temple and ziggurat, it seems to me that Andrae's analysis of the niched structure as the gateway of earthly appearance of the god must still be accepted, at least for the later periods. Not only the occasional cutting of the niche into the body of the tower itself, but also the parallels with the scheme of certain Egyptian mortuary temples can only be explained in this way. <sup>13</sup> G. Loud, *Khorsabad i*, p. 119. <sup>14</sup> *Ibid.* fig. 125.

<sup>15</sup> Andrae, "Die jüngeren Ishtar Tempel in Assur," *WDOG.* 58, p. 22.

<sup>16</sup> Column V, lines 4 and 5. <sup>17</sup> ŠAMŠU <sup>18</sup> BÂBILI <sup>19</sup>. Observe that the king refers to himself as "the Shamash of Babylon," which has as much the flavor of the divine representative as of divinity.

<sup>18</sup> C. J. Gadd, *British Museum. The Assyrian Sculptures*, p. 15.

<sup>19</sup> *Nineveh and Babylon, Second Expedition*, p. 302, illustration.



There is a certain presumption that Assyrian cult images were often made of some material lighter than stone. There are various records of their having been carried about, and some are specifically stated to have been of gold. Stone was certainly not forbidden, however, since there exists at least one inscription describing the making of an image "with the choicest stone from the mountain and with ruddy gold."<sup>19</sup>

Because of the lack of preserved Assyrian sculpture in the round of the seventh century, it has seemed worth while to emphasize the characteristics of this well-preserved earlier piece which relate it to the temple form, a form which we know to have continued unchanged. Lest it be thought that this statue is unique in these features, it may be well to turn briefly to certain other examples. The statue of Shalmaneser III, which is now in Istanbul,<sup>20</sup> is very similar to the work just discussed. The ratio of breadth to depth which was observed in connection with the figure of Ashurnasirpal is almost precisely repeated here. There are other figures which are less "board-like" in appearance, yet are relatively flat and markedly angular in section. One such was found by Place in front of the Sin temple at Khorsabad and is now lost. Others are two portal statues from the temple of Nabu at Khorsabad, which are now in Chicago, and another portal figure from the Shamash temple at the same site.<sup>21</sup> All of these must be dated near the end of the eighth century. Some of them might be called as plump as the Greek statue from Auxerre, but none more so. None of them could by any stretch of the imagination be related to the geometrical form of the cylinder. It may be well to repeat here the remarks of an Englishman who saw a very considerable amount of Assyrian sculpture of this general period. In describing the discovery of the statue of Ashurnasirpal, Layard said: "The features were majestic, and the general proportions of the statue not altogether incorrect, with the exception of a want of breadth in the side view peculiar to Assyrian works of art of this nature."

The angularity of section of so many Assyrian statues is to be seen in its most fantastic form in a seated statue of Shalmaneser III, which probably once stood in the Metal Workers' Gate at Assur.<sup>22</sup> No better expression than "kantige Wucht" could be found to describe the extraordinary forms of this figure. To judge from the wash drawing which Boutcher made at Nimrud, the figure, executed in the reign of Adad Nirari III for the Nabu temple there, was of similar character.<sup>23</sup> The solidity and cubic mass of these works should prevent us from reversing the older opinion and hastily assuming that all Assyrian statues were flat and without depth. There are several variations known, as the so-called Nabu statues in the British Museum will serve to indicate. It is important to recognize that these statues, which come from the same reign as the above and bear the famous Semiramis inscription, are not images of the god Nabu, are not, indeed, cult images at all.<sup>24</sup> It is not impossible that the various forms assumed by Assyrian sculpture in this period may all be related to the functions and original positions of the works themselves.

It cannot be denied that the form of the figures from Khorsabad which have been

<sup>19</sup> R. Pfeiffer, *State Letters of Assyria*, p. 109, number 144; D. D. Luckenbill, *Ancient Records* i, no. 468.

<sup>20</sup> Andrae, *Festungswerke von Assur*, text. Blatt 13 and p. 37.

<sup>21</sup> F. W. Von Bissing, "Beiträge zur Gesch. der Assyrisch. Skulptur," *ABA.* 26, p. 3, pl. III; Loud, *Khorsabad* ii, pl. 47; *ibid.* i, p. 99, fig. 107.

<sup>22</sup> Andrae, *Das wiedererstandene Assur*, pl. 4.

<sup>23</sup> Gadd, *The Stones of Assyria*, pl. 8.

<sup>24</sup> *Ibid.* p. 150.

mentioned above is remarkably similar to that of the small ivory figure of about the same date which Hogarth found at Ephesus, the so-called Eunuch,<sup>25</sup> of which the importance for Greek sculpture has been generally recognized. Kunze recently remarked upon the Assyrian character of this ivory, and went on to discuss similarities that exist between the earliest ivories from Ephesus and those from the sanctuary of Artemis Orthia at Sparta. I do not intend to turn these remarks into a polemic on the much-vexed subject of "oriental influence," which soon must degenerate into a discussion of "What is influence?" but the connection cited above seems to me of fundamental importance in relation to our evaluation of the so-called "Dorian Daedalic style." In the review by Heidenreich, already cited, he maintained, as others have done, that the home of the Daedalic style is to be sought either in Crete or in the Peloponnesos. A fragment of a work in this style which was found on Samos he dismissed with the peculiarly revealing comment that, if the work were known without its finding-place being ascertainable (as is the case with the Auxerre figure), it would unhesitatingly be attributed to one of these regions. There is something dangerously circular in the argument that the style must be regarded as a self-germinated outpouring of the Dorian genius because examples are not found in non-Dorian regions, while works that are so found must be attributed on grounds of style to importation. In the generally oriental flavor of early Sparta, so beautifully sung for us by Alcman, is to be found one patent fact: not even Dorians can live in complete cultural isolation, tilling their fields and fighting their battles with the solemn thoughtlessness that is so often ascribed to them, and that they did, indeed, at a later date endeavor to achieve. The Daedalic style is not Dorian and is not limited to Crete and the Peloponnesos.<sup>26</sup>

Whatever should be made of them historically, there are other parallels to be observed between the Greek style of the middle of the seventh century and Assyrian sculpture. There are even certain minor Assyrian works which betray similarities to the characteristic and constantly repeated facial types of Daedalic terracottas, so excellently defined by Jenkins in *Daedalia*. The "Ishtar" head, which Meissner illustrates, and the small, limestone model of a sphinx from the palace of Sennacherib both display markedly low foreheads, topped by straight, flat bands, below which appear numerous ringlets or waves of hair,<sup>27</sup> just as they may be seen in several heads illustrated by Jenkins. Once more we may mark the large almond eyes. If we are correct in assigning the Nicandra statue and the figure from Auxerre to dates about the middle of the century, we may well recall the strong statement which Payne wrote: "The difference between Corinthian and Protocorinthian is the difference between Assyrian and Hittite."<sup>28</sup> The first example of his Assyrian lion type is on the Chigi vase. Evidences of connection are not wanting. Heinrich

<sup>25</sup> D. G. Hogarth, *The Archaic Artemisia*, pl. 21, no. 2. See also Kunze, *Kretische Bronzereliefs*, p. 259.

<sup>26</sup> See also Richter, *AJA*, 1937, p. 341. On the general subject of Dorian art, more attention should be paid to the small volume published as long ago as 1911 by E. Pottier, entitled *Le Problème de l'Art Dorien*.

<sup>27</sup> B. Meissner, *Grundzüge der babylonisch-assyrischen Plastik*, Abb. 217; A. Paterson, *Assyrian Sculptures, Palace of Sennacherib*, pl. 103.

<sup>28</sup> *Necrocorinthia*, p. 54.

Brunn<sup>29</sup> even endeavored, at one time, to demonstrate that the gentler character of the reliefs of Ashurbanipal was due to Greek influence. Two most interesting recently published examples of Greek importation or direct imitation of Assyrian works are a figure from the rim of a bronze cauldron, found in Delphi, and a small statuette from Samos, both illustrated by Kunze.<sup>30</sup> Whether or not we should use the somewhat ridiculous word "influence" in relation to all these connections, it is certain that we should revise our estimate of the insularity of the seventh-century Greek sculptor.

By 612 the prophecy of Zephanaia had been fulfilled. Jehovah, in the persons of the Medes and Babylonians, had stretched forth his hand against the North and made Nineveh a desolation and dry like the wilderness. But before it expired, Nineveh had unconsciously been instrumental in the establishment of another firm government on the ancient soil of Egypt. The communications which the Greeks had maintained with Assyria in the great days of the empire were replaced by even closer relations with the Nile delta. The dates of the foundations of the three major sites of early Greek settlement cannot all be definitely fixed. For the "Fort of the Milesians," the primary evidence is contained in the somewhat confused statement in Strabo xvii, 1, 18, but modern writers vary considerably in their opinions on the date.<sup>31</sup> It seems unlikely that the site antedates the seventh century, but, in any event, it is not probable that this was the sort of settlement likely to stimulate effective cultural relations between Greece and Egypt. At Daphnae, as we have seen, the fort was established early in the reign of Psamtik I. As Herodotus indicates, this was a materially more important center, and Petrie found evidence which led him to believe that a very considerable number of merchants was domiciled outside the walls of the fort. The greatest uncertainty exists concerning the town which is of the greatest significance for our discussion, Naukratis. Petrie<sup>32</sup> offered two alternatives for the period of the establishment of the more permanent houses and the general development of the site into a town worthy of the name, either 650-630, or 610-600, and of these he preferred the earlier date. This period is preceded by a fire which destroyed the apparently very simple settlement that had gone before. Actually, there is no very pressing reason why the events referred to may not have happened at almost any time between the dates suggested. We may say, then, that there were Greeks living in Egypt from a date early in the reign of Psamtik I, but that the solid urban development belongs to the third, if not the fourth quarter of the century.

To judge from the number of kings of Egypt recognized by Ashurbanipal, the XXVth dynasty must have been a period of some confusion. Yet certainly the Ethiopians did not think of themselves as usurpers of the throne, but rather as continuers of the traditions of the best period of the Empire. With this in mind, Taharka planned additions to the great temple of Amon at Thebes, and the sculptors began that practice of archaistic imitation of the *moeurs* of already ancient Egypt.

<sup>29</sup> *Griechische Kunstgeschichte* i, p. 109.

<sup>30</sup> *Kretische Bronzereliefs*, Beilagen 6, 5. In this connection should be cited Lorimer's observations on the type of the Zeus Horkios at Olympia, *BSA*. 1936-37, p. 173.

<sup>31</sup> See H. R. Hall, *Oldest Civilization of Greece*, p. 271.

<sup>32</sup> Petrie, *Naukratis* i, p. 5.

Taharka, indeed, spent his youth in the region of Thebes, and it was to that place that he at first retreated at the time of the Assyrian invasion. The period is of interest in view of the fact that the Greeks were familiar with the names of Tefnakhte and Bocchoris, kinglets of the Delta, nominally subject to the Ethiopian suzerain.

So much has been said of the unifying influence of the Nile that we are sometimes prone to underestimate the definite duality of the country from a geographical point of view. The persistence of the double crown and the dual form of the Hebrew name, Mizraim, are but symbols of this division. The narrow valley of the upper Nile, fenced in by unattractive desert, turns this part of the country in upon itself, or draws its interests southward. The tendency of the people of the fertile Delta to spread their interests along the African coastland and into foreign trade is equally natural. The period of Ethiopian rule was a period of exceptionally strong centralization in Upper Egypt and in Nubia. How far this was carried may be noted from a relief of the period of Taharka at Karnak. The subject is a procession of standards, and the gods of the four quarters are represented as Dedun of the South, Sebek of the West, Sopd of the East, and Horus of northern and southern Egypt.<sup>33</sup> Furthermore, as we have seen in the case of Taharka himself, it was usual for the rulers of this dynasty to establish their sons as regents of Thebes, which was no longer the center of government.

Thus the XXVth dynasty had its back to the North, where a few Greeks may have been already establishing themselves. The area of the Delta had scarcely any share in those first intimations of revival that belong to this period. The archaistic aspect of the new movement was far less important than in the following dynasty, was, indeed, limited to the imitative use in sculpture of the ancient royal skirt. Käthe Bosse's<sup>34</sup> comparison of this trait with the nineteenth-century European use of the toga is amusingly apt. Much more important is the development, particularly toward the end of the Ethiopian period, of a considerable degree of realism in the rendering of heads. This may be observed in the famous standing statue of Montemhet in Cairo, and in the kneeling statue of his brother, Horsiese, also in Cairo.<sup>35</sup> One must observe in the quality of these representations, however, that they are rather monuments to the strength and vigor of the ruler than sympathetic studies from nature. And this new treatment of the head in late Ethiopian works is accompanied by an increase in the tendency, noticeable as early as the XXIIInd dynasty, toward marked simplification in the forms of the body.

It is justifiable to assume that the semi-independent princes of the Delta in the late eighth and early seventh centuries might well have produced a sculptural style of their own, even though we have no indication of the existence of such. It needs no mighty king to make a mighty boast. But the nature of the sculptor's craft in Egypt would seem to have been peculiarly such as to flourish only under favorable economic and political conditions. The basic functional, rather than aesthetic, end of

<sup>33</sup> Petrie, *History of Egypt* iii, p. 301.

<sup>34</sup> K. Bosse, *Die menschliche Figur in der Rundplastik der ägyptischen Spätzeit von der XXII bis zur XXX Dynastie. Ägyptologische Forschungen von A. Scharff*, Gluckstadt. 1936. For this reference I am indebted to Professor Henri Frankfort.

<sup>35</sup> Legrain, *Catalogue Générale, Statues et Statuettes de Rois et de Particuliers* iii, nos. 42236 and 42244.



sculpture tended to relate its production to a process of manufacture rather than to the outpourings of the artist, whose feelings may be as much stirred by the excitements of war as the solid values of peace. For this reason a more direct relationship may be said to have existed between the making of sculpture and the politico-economic conditions in Egypt than in many other countries. And when we read in a Demotic romance of the troublous and disorganized society of the Delta in this period, we may understand that under such conditions the highly complex artistic industry of mastering eternity must have fallen somewhat into decay.<sup>36</sup>

The accession of the Saite dynasty under Psamtik I brought about great changes. Of first importance was the transplanting of the capital to Saïs in the Delta, and the at least partial dependence of the rule upon Greek troops. Thebes swiftly diminished in importance.<sup>37</sup> The government, which had been centered in the narrow valley of the upper Nile, was now established in a region traditionally involved in the commercial traffic of the Mediterranean. One of the phenomena of this phenomenal age was the apparent lack of effort on the part of the still powerful Assyrians to maintain active control in the Nile valley. Perhaps this fact is to be related to that dangerously liberal policy which allowed the growth of Babylon as a "charter city" to a size and strength that were soon to become threatening. This relative independence (and also this increased realization of the nearness of the rest of the world) is reflected in the archaistic style of the XXVIth dynasty. Of this development the most extraordinary manifestation is the tomb of Ibi in Thebes. An official of the reign of Psamtik I, Ibi copied whole reliefs from the tomb of a namesake Ibi of the sixth dynasty, a man as far removed from himself in date as we are from the emperor Constantine.<sup>38</sup>

Bosse points out the suggestive fact that, among the dated statues of this late period, (painfully few, it must be admitted, in proportion to the whole of the material) there are no examples which could in any sense be considered realistic between the statue of Montemhet already discussed and the beginning of the Persian dynasty. One of the most interesting problems in Egyptology concerns a group of remarkably naturalistic heads which center about the so-called "green head" in Berlin. There exists a considerable number of these (a superb example is in the Museum of Fine Arts in Boston)<sup>39</sup> and some authorities have attributed them to the sixth or seventh century. My own conviction (perhaps it is a natural prejudice of classical archaeologists) is to place this group of works very late in time, later, even, than the date of 400, to which Scharff has assigned them. The same point of view is taken by von Bissing. It is difficult to compare works of this peculiarly organic character with reliefs, although the Henat relief in Berlin (now apparently fixed in the middle of the sixth century) has been often associated with them. Nor is Anthes'

<sup>36</sup> The papyrus is published by Krall in *Papyrus Erzherzog Rainer* vi, 1897, which was not available to me. There is a condensation of the story in Petrie's *History* iii, p. 321 f.

<sup>37</sup> The political processes of this transfer of power are discussed by H. Kees, "Zur Innenpolitik der Saitendynastie," *NGG*. 1935, p. 95.

<sup>38</sup> N. deG. Davies, *Deir el Gebrâwi* i, p. 8.

<sup>39</sup> *BMFA*. 1937, p. 71. There has been a very lively current discussion of these heads in a series of articles in the *Zeitschrift für ägyptische Sprache* as follows: R. Anthes, "Der Berliner Hocker des Petamenophis" 73, p. 25; von Bissing, "Grab des Petamenophis in Thebes" 74, p. 2; A. Scharff, "Ein Spätzeitrelief des Berliner Museum" 74, p. 41; R. Anthes, "Berliner Henat-Relief" 75, p. 21.



comparison with the squatting figure of Petamenophis in Berlin a convincing one. The head of this figure is far more severe in handling, fits much better into the style of the period of Taharka than do any of the works grouped around the "green head." (Von Bissing has also questioned the dating of the statue of Petamenophis, but in this case the arguments of Anthes are specific and conclusive). It is at least clear, I believe, that this group of works must be excluded from our consideration of the seventh century.

The tomb of Ibi demonstrates quite clearly—what the evidence of several late Egyptian tales had already suggested—that the tombs of the ancients were opened and visited in the Saite period. As might be expected under such circumstances, there was developed a very mannered, highly conservative style of sculpture which accompanied the academic imitations of the Old Kingdom. Even the latter have almost invariably a mannered, pattern-like character that would make it impossible to confuse them with works of an earlier period. Sergio Donadoni<sup>40</sup> has made several suggestive observations concerning the nature of the contrast that exists between Old Kingdom and Saite sculpture. Most striking is the conscious intellectual character of the late art. The figures are abstractions, not dressed in the costume of the day, and lacking entirely the deep, human sympathy of the products of the dynasties IV and V. They betray the sculptors' intense concern with problems of design and artistic form, rather than with content. One may wonder whether there is any connection between these peculiarities and the fact that by far the greater number of preserved statues of the XXVIth dynasty come from temples rather than from tombs.

In the treatment of heads this stylization results in the establishment of a type with certain definite characteristics. One of these is the exaggerated depth of the head at the temples. Another is the frequent abandonment of the plastic strips used for eyebrows. The brows are then the sharp junctions of two surfaces, and their definite bow-form springs in a continuous curve from the root of the nose. As may be seen in the figure of Petamenophis,<sup>41</sup> already mentioned, these features sometimes result in a markedly austere appearance, but in most cases this is vitiated by the smooth, graceful curve of the stereotyped smile.

This style affords a notable contrast to the kind of design, itself somewhat over-refined, that belonged to the latter years of the Empire. Then it had been the linear motives of drapery folds, strands of hair, and sinuous outline that received all the attention of the sophisticated artist, elaborating upon an ancient theme. Now the basic character is quite opposite. The linear elegancies of decorative detail are abandoned. (There are even cases of Saite annexation of works of the Empire period in which the complex folds of the skirt have been smoothed off, but this was done primarily in order that the reliefs and inscriptions, so important to one phase of the late antique, might fill the space). The wig is now more often smooth and flat than marked with the strands of hair, and it is carried back in a severe line above the ears, presenting, in side view, that remarkably deep profile so often mentioned in connection with these works. With this tendency to a severely cubic design must be related the use of extraordinarily hard, highly polished stones, so frequently met with in the

<sup>40</sup> *La Critica d'Arte* 1937, p. 153.

<sup>41</sup> Illustrated in Anthes' article, cited above.

period. These stones do not lend themselves readily to the delicate carving of the narrow, sinuous lines of the Empire, but they do urge upon the spectator the solid, tactile substance of their massive bulk.



FIG. 2.—TAI-ASHT-IMW. BRITISH MUSEUM

The same features are to be observed in the body of the Saite figure. There is no effort to achieve a representation of the living man, but rather the human form is resolved into certain broad, smooth planes of a mannered flatness. Some of these statues, particularly the ubiquitous squatting figures, encased in their cube of drapery, seem like theoretical shapes entirely drawn from abstract design rather than studied from nature. These characteristics are most strongly developed in the period after that with which we are working. The Nekht-her-heb in the Louvre, for example, which is the primary subject of Donadoni's study, probably belongs in the fourth century. But Wah-ib-re, whose standing statue in Bologna<sup>42</sup> was made about the middle of the sixth century, shows how far the style was developed at that date. The elements of the style are, in fact, already discernible in the Cairo statue of Pa-sheri-n-Mut,<sup>43</sup> of the very beginning of the XXVIth dynasty. In any case, the early examples of the squatting figure show how strong this tendency was even in seventh-century Egypt.

The statue of Tai-ashet-imw in the British Museum is an example of a type with unusual interest for us (fig. 2). The wig is based on an Old Kingdom form, as is also the general character of the figure.

This statue Bosse coupled with another in the Vatican (Pa-sheri-n-ta-ihet),<sup>44</sup> unfortunately much restored, in which the slender proportions and stylization are carried even further. Unfortunately, it has not been

<sup>42</sup> Bosse, p. 16, number 9, and plate Ic.

<sup>43</sup> Legrain, *Statues et Statuettes* iii, no. 42243. I am grateful for the assistance of Dr. William S. Smith, of the Boston Museum of Fine Arts, for assistance in the spelling of these names. Where simpler forms existed I have gladly used them, feeling that it was well worth the necessary inconsistency.

<sup>44</sup> Tulli, "La Statua dello Scriba Pšnt Ahê," *RendLinc.* Rome, 1928. The reference in Bosse is incorrect.

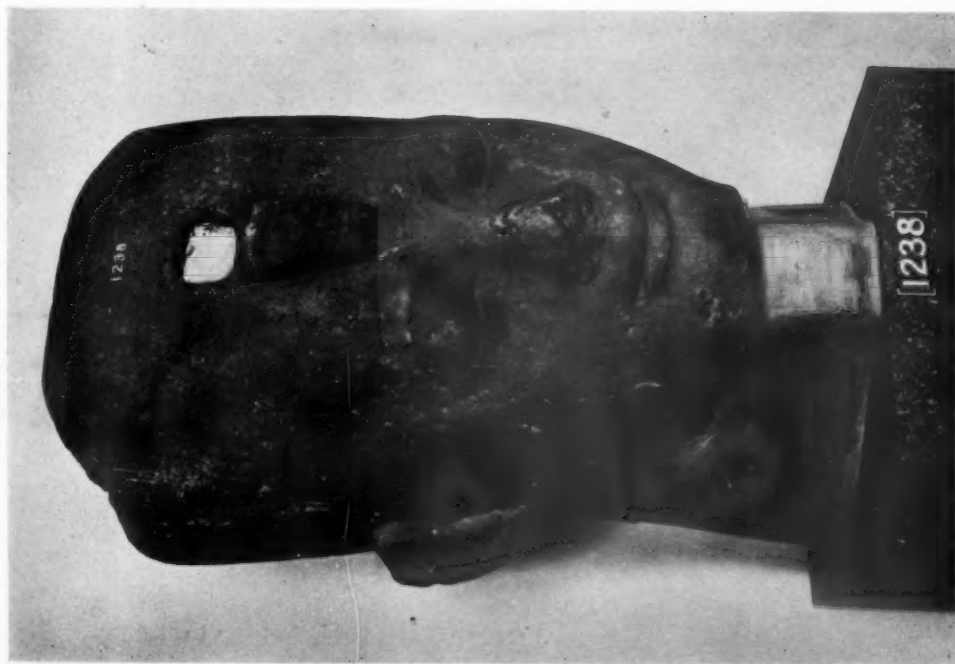


FIG. 3. — HEAD OF A COLOSSAL STATUE OF PSAMTIK II.  
BRITISH MUSEUM



FIG. 4. — MARBLE HEAD IN THE BRITISH MUSEUM

possible to date these statues with any precision, but it is to be observed that the head of the one in the British Museum (of which I have not seen any adequate photographs published) is, in certain features, strikingly similar to a type already current in the reign of Taharka. The comparisons I should suggest are with the famous head of Taharka himself in Cairo, and with another Cairo head, apparently also of an Ethiopian king. Both of these are illustrated by Borchardt in the Cairo catalogue (*Statuen und Statuetten von Königen und Privatleuten* ii, 560 and iv, 1291). The severely straight mouth and the rather unusual form of the eyes are the particular elements that these works have in common, but it is the generally heavy and solemn expression that makes them seem so very similar. If this evidence be considered valid, and the two statues under consideration are indeed to be dated to the middle of the seventh century (a somewhat later date than Taharka is to be assumed because of the closer relationship to Old Kingdom works), they afford a remarkably interesting parallel to the earliest Apollo figures of the end of the same century. This may be illustrated by a comparison of the words which Bosse used concerning "... the form of stylization, having a tendency to the greatest possible simplification and to clear lines, indeed, often to almost mathematically constructed forms," with Miss Richter's remark about the Apollo in New York: "The ideal of the art of the time was not realism as we understand it, but a simplified conception of the human figure, a solid, harmonious structure in which essentials were emphasized and generalized into expressive patterns."<sup>45</sup> I am aware that the similarity and dissimilarity of various elements, the stance, the drapery, the hands, and so forth, have been repeatedly discussed; what is perhaps more challenging than these comparisons of detail, and more significant than the transmission of tricks of the sculptor's craft, is this parallelism of mode of design.

One further reason for the attribution of these two Egyptian statues to a date early in the XXVIth dynasty is the fact that the development of that period is definitely away from the severity of these figures and toward the grace and refinement that we can observe in one precisely dated work, the head in the British Museum from a colossus of Psamtik II (fig. 3). This was executed in the early years of the sixth century. The parallels with the second stage of Greek sculpture of the first half of the sixth century are obvious, and I illustrate as an example a head to be found in the British Museum (fig. 4). If we were seeking to demonstrate the "influence" of one people on another, we might note the precise similarities between the eye- and mouth-forms of the Greek and the certainly earlier Egyptian work. More germane to our purpose is the recognition of the remarkable parallelism of design that marks the products of these very different peoples.

Some Egyptian statues of this period display a design which is much less one of simple, flowing surface than a complexity of brilliant, broken planes. Such is the magnificent royal head in Berlin (fig. 5). This work is, unfortunately, undated. It is very close in style to a head in the Louvre<sup>46</sup> which is often listed as a portrait of Psamtik III, a king whose brief reign in 525 B.C. brought the XXVIth dynasty to a close. Actually, there is not a shred of evidence as to the personage represented in the

<sup>45</sup> Bosse, *l.c.* p. 18; Richter, *MMS.* v, p. 21.

<sup>46</sup> C. Boreux, *Musée du Louvre. Antiquités Égyptiennes* ii, pl. LXII.



FIG. 5.—HEAD OF A KING. BERLIN, ALTES MUSEUM



FIG. 7.—APOLLO FROM MT. PROÖS. ATHENS, NATIONAL MUSEUM



Louvre portrait. Bosse put both heads in the general period of the XXVIth dynasty. It is unfortunate that the example in Berlin cannot be more precisely dated, because it, too, offers interesting parallels with a certain phase of Greek work. Despite her essentially Hellenic character and her great staring eyes, the standing goddess in Berlin reveals a surprisingly similar interest in the possibilities of a complex grouping of plane areas (fig. 6). The creator of this figure was far less primitive than many moderns who call him so.

A discussion which pretends to deal with the seventh century from an "international" point of view must certainly concern itself with the much disputed passage



FIG. 6.—HEAD OF THE "STANDING GODDESS" IN BERLIN, ALTES MUSEUM

in Diodorus Siculus (i, 98) which tells the story of how Theodorus and Telecles, working in the Egyptian manner, were able to construct a statue in two halves and then fit the halves together. While it is quite justifiable to consider this account simply a tall tale, it is probable that only by using the Egyptian method (although the theory is not unknown to other races) could Greek sculptors have achieved anything like satisfactory results. This method involved the drawing upon the unworked stone of a network of squares upon which the position of each part of the body could be plotted with precision. The recent comment on the passage in Diodorus by Meryon<sup>47</sup> concerns itself primarily with explaining the use of the number  $21\frac{1}{4}$  units for the height of the figure. Meryon apparently did not have access to the illuminating discussion of this subject by C. C. Edgar.<sup>48</sup>

Edgar observed a development of the Egyptian scheme from an earlier division of the figure into 19 units (18 to the root of the hair), which was an outgrowth of the Old Kingdom method of drawing a series of parallel lines on the unworked wall as a guide to the sculptors carving reliefs, to a division into 22 units plus, which came into use in the Saite period. According to the latter plan, the height to the root of the hair is about  $21\frac{1}{4}$  units. The way in which this technique could be applied to statues in the round may be partially observed in the lines remaining on a series of unfinished statues of Mycerinus published by Dr. Reisner.<sup>49</sup> In this case, it is apparent that assistants worked on the lines arranged by the master until these were obliterated, when new lines were drawn. The actual use of squares in a preparatory drawing for a work in the round is illustrated in a papyrus published by Panofsky.<sup>50</sup>

Since the Egyptian unit was an arbitrary one, it does not necessarily follow that

<sup>47</sup> *Antiquity* 1937, p. 344.

<sup>48</sup> *Recueil de Travaux relatifs à la philologie et la chronologie Égyptiennes et Assyriennes* 27, p. 137.

<sup>49</sup> Reisner, *Mycerinus*, p. 115.

<sup>50</sup> *Monatshefte für Kunstwissenschaft* 1921, p. 188 f. and pl. 29, no. 2.

the change from a scheme of 19 to one of 22 units for the height of the figure must result in an elongation of the actual proportions. As long as the only factor given is that of height, different sculptors might produce very differently proportioned statues, all using the number  $21\frac{1}{4}$  units to express the basis of the graph. Yet it is true that in the Saite period the real proportions were apt to be more slender, a feature which played a part in producing the rather mannered grace that we have seen to characterize many works.

Panofsky's article sets forth brilliantly the true significance of the employment of this method. The number of units used is of no great importance. It is the basic abstraction involved in this inorganic analysis of the figure which colors the art that may be produced by this technique. In contrast to it the classical study of proportions is based upon the relationship of parts considered always as fractions of the whole figure. That, at any rate, is true of Vitruvius, and, to judge from the famous passage in Galen (*Placita Hippocratis et Platonis* v, 3), this was also the essence of the Polyclitan theory. The fundamental difference between this and the simple adding together of units of arbitrary size cannot be too greatly stressed, but the matter has been carefully considered in this very important article, to which the reader is referred. Save for the specific reference to Theodorus and Telecles, there would here be no question of the influence of one country on another, since the essentials of the Egyptian method, although they were not elsewhere carried to such a refinement of detail, must have been an assumption of the entire pre-classical world.

On the other hand, to refer once more to the parallel cited between the descriptions of Saite and Greek statues by Bosse and Richter, it may be that there is rather more historical value in these broad stylistic comparisons than has recently been attributed to them. In a similar vein, Anthes, describing the squatting figure of Petamenophis, emphasized just those characteristics of severe, harsh design, based upon the juxtaposition of wide, flat planes, that are so often remarked in the earliest Greek works, the Dipylon head, the Sunium statues, Thebes Museum no. 1, and so on. Thus there are other elements of design which archaic sculpture and Saite sculpture have in common beyond their mutual participation in that certain commonality of expression which belongs to all pre-classical art. The contrast that exists between the sculpture of the Old Kingdom (equally "non-classical") and that of the Saite period serves to point this fact. It is the austere quality of Egyptian statuary of the seventh century which prevents our assigning to that century the realistic works that are associated with the so-called "green head." This austerity is seldom relieved by any lingering over the specifically human qualities which might distract from the harsh and sometimes noble plan. Others have observed in this characteristic of early Greek sculpture the expression of the noble severity of the life of the Eupatrid, in the days of his great strength. There is even a suggestion of our own puritan elders, whose unbending adherence to law and discipline has made them the popular villains of the films which mirror our own softer ways of thought. We are very poor in social documents concerning Egypt of any period. What was the relative position of the small landholder in the Old Kingdom and in Saite times? How rigidly restraining upon the small man was the economic system of either date?

These are questions to which the answers do not seem to exist. The concept of mankind revealed by the older portraits would suggest that in the Old Kingdom the hierarchy of persons and possessions was less fixed than it later became, that people knew a simpler appreciation of all of nature, and so of humanity for its own sake. Despite the absolute lack of historical documentation, it is easy to select from the extant records certain examples which seem to bear out this thesis. The fragmentary utterances which are translated by Erman<sup>51</sup> from the oldest poetry have a quality suggestive of the Japanese in their direct, sensuous enjoyment of the world:

"He rusheth at the sky as a heron, he hath kissed the sky as a hawk, he hath leapt skyward as a grasshopper."

or again:

"They tremble that behold the Nile in full flood. The fields laugh and the river-banks are overflowed. The god's offerings descend, the visage of men is bright, and the heart of the gods rejoiceth."

It is another picture that is conjured up by the courtly story of knightly struggle, related in the Demotic romance already mentioned. The punctiliousness with which both participants in the ceremony of battle await the drawing up into position of the opposing warriors has been often compared to the customs of war described in Mediaeval legend. The struggles of the eighth and seventh centuries among the Delta chieftains provided just the sort of background most likely to produce a society of powerful baronial leaders controlling large numbers of powerless and more or less hopeless people. Prevented by the times from acquiring the self-confidence and independence which derive from long and peaceful tenure of the soil, the Egyptian peasantry must have tended to degenerate into moral as well as physical peonage. It was for such a society of barons, sitting high above the heads of a *canaille* of mercenaries and dependents, that the mannered, elegant Saite art was produced. If this society was less vigorous and forceful than that of contemporary Greece, it was partly because it was weighed down by a greater tradition, making more sophisticated and less optimistic the wielders of temporary power. The social and economic structures of the two countries must have been not altogether dissimilar. Certainly both the early archaic Apollos and the sculpture of the Saite period speak to a kind of aristocracy; neither of them has much message for the gentle, comfortable bourgeois.

Because the general course of this discussion has been to emphasize certain observed parallels between archaic Greece and her neighbors, I cannot risk being misunderstood by omitting to conclude with a few remarks reaffirming the obvious truth that Greece is not the East, that Greek sculpture is not Oriental sculpture, and that the Greek artist, from the beginning, was working toward new and original ends. There is no possibility of confusing an Apollo with an Egyptian statue, or the Artemis of Nicandra with some suppositious portrait of Semiramis, but I have endeavored to indicate how aware the early Greeks were of the more civilized people about them at the stage when they were developing their monumental sculpture. The very real contrasts which distinguish Greek art from that of the Near East are excellently set forth in a volume by Gerhard Krahmer, *Figur und Raum in der*

<sup>51</sup> A. Erman, *The Literature of the Ancient Egyptians*, p. 2 (a) and p. 10 (m).

*ägyptischen und griechisch-archaischen Kunst.*<sup>52</sup> In furtherance of his remarks, and in the hope of forestalling the charge of underestimating these contrasts, I present here a comparison of that royal head in Berlin which has been mentioned before and the head of an Apollo from Mt. Ptoös, number 10 in the National Museum at Athens (fig. 7). In the Egyptian head, within the scheme of the sophisticated, mannered composition, exist the transient features of the man. His royal insignia is a definite part of his individual, personal being, in the same sense that his name would be, were that not lost to us. The head of Apollo is also composed in a relatively abstract style of consummate symmetry and repose, but it is based upon the features of no human being. In Apollo is portrayed the real organism of humanity, the constant structure which moves beneath and behind the incidentals of phenomenal appearance. There is a widely held, but very mistaken notion that the Egyptians were not interested in the present or in transient things, having thoughts only for eternity. Nothing could be further from the truth. It is the fearful passion for the preservation to perpetuity of all details and even ephemeral appearances of the beloved present that has built the pyramids and carved the vast cave-tombs of the Nile. Perhaps one should say that this contrast represents two differing concepts of the nature of time, the Egyptian having his eye fixed upon the terrifying spectacle of the all-destroying sequence of ages, the Greek sensing rather the slow, ponderous revolutions of life, through which the essential things, the only things worth representing, remain constant. It is a subject which does not thrive with too much mouthing. The Greek attitude was set down by Heracleitus long ago, and in a single sentence:

ἐν τῷ σοφόν, ἐπίστασθαι γνώμην ἢ  
κυβερνᾶται πάντα διὰ πάντων.

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<sup>52</sup> *Halle Winkelmannsprogramm* 28. For this reference I am indebted to Dr. Lehmann-Hartleben.



## A COLLECTION OF CYLINDER SEALS IN THE BIBLIOTECA VATICANA<sup>1</sup>

IN THE third decade of the nineteenth century the R. P. Maximilian Rylo, a Polish Jesuit, was sent on a mission to the Near East, including Mesopotamia. Upon his return to Europe in 1838 he offered the small collection of antiquities he had acquired during his travels in homage to the reigning Pontiff, Gregory XVI, who gave orders that they should be placed in the Museo Etrusco of the Vatican which he had recently founded. They now form part of the collections in that part of the Vatican Library denominated "Museo Profano." The antiquities were enclosed in a case of crimson leather, tooled in gold, and bearing on the lid the dedication:

GREGORIO XVI. PONT. MAX.  
MUSEI ETRUSCI AC AEGYPTIACI CONDITORI  
SIGILLA ET SCRIPTA GEMMIS LATERIBUSQUE  
AB ASIAE GENTIBUS VETUSTISSIMIS INSCULPTA  
MAXIMILIANUS RYLLO SODALIS E SOC. IESU  
AB EXPEDITIONE BABYLONICA REDUX  
AN. CHRIST. M. DCCC. XXXVIII

The collection comprises seven fragments of clay tablets and brick-stamps to illustrate the different types of cuneiform characters, and a fragment of a stone relief, apparently a bit broken off a *kudurru*; these are all contained in one tray. In the upper layer of the case, slots were carved to fit each separate object, and the moulded surface thus contrived was covered with grey velvet, so that it resembled a jewel-case. On each side there is a clay foundation-cylinder perfectly preserved, and then, arranged in the middle, are nine cylinder seals and one Neo-Babylonian stamp-seal, two small amulets, and fourteen Sassanian seals. The last named have been studied by Professor Unvala, who intends to publish them in the Corpus of Sassanian Seals which he is preparing.

Pater Maximilian Rylo stated that he visited the ruins of Nineveh and there obtained the cylinder seals which are the subject of the present study.<sup>2</sup> There is nothing surprising in the fact that seals varying so widely in date and style should all have come from Nineveh, for the excavations carried out there by Professor R. Campbell Thompson have demonstrated the very early date of the first settlement on the site of the later Nineveh, and the lengthy subsequent history of the city, and have yielded seal-impressions which antedate any seal in this collection.

An inquiry into the origins of this little collection fills one with admiration for the skill and perspicacity of the reverend Father, which are worthy of the highest praise,

<sup>1</sup> Commendatore Bartolomeo Nogara, Director of the Pontifical Museums, and Dr. Vollbach, Assistant in the Museum of the Vatican Library, invited me to make a catalogue of this small collection of seals. The work was undertaken with the full approbation and gracious permission of the R. P. Prefetto della Biblioteca Vaticana, and I should like to express my gratitude to them all for their kindness in facilitating the work. I am deeply indebted to Professor Dr. A. Pohl, S.J., who was good enough to attempt to decipher the inscriptions, a labor of patience, owing to the worn condition of some of the seals. The most sincere thanks are due to the R. P. Lamalle, S.J., for his valuable information as to the bibliography concerning the R. P. Maximilian Rylo, S.J.

<sup>2</sup> Ks. M. Czerminski, S.J., *O. Maksymilian Rylo*, 1911, i, p. 129. The double figure on pp. 120-1 gives a picture of the collection as a whole; that on p. 130 illustrates three of the seals, actual size, and adds the information that they were found at Nineveh.



for at a time when Assyriological studies were in their infancy, he chose just those seals which would serve to illustrate the art of every period of Babylonian history, from the Early Dynastic to the Neo-Babylonian period, finally making a representative selection of choice Sassanian examples. The collection has the further great merit of being absolutely above suspicion, for more than one hundred years ago, when the learned Jesuit Father acquired his antiquities, forgers had not begun to imitate Babylonian cylinder seals. The name of Pater Maximilian Ryllo should, therefore, be held in reverence by all those scholars who are interested in Babylonian and Assyrian studies.

## CATALOGUE

No. 1. (Museo Profano, no. 6187). Limestone cylinder seal. 26 x 15 mm.

A man with shaven (?) head and wearing a short skirt ending in a tasselled border endeavors to rescue a rearing antelope which turns to right, but stretches its neck upwards and turns its head backwards in an attempt to escape from a lion which bites its throat. The lion is crossed by another lion attacking a rearing bull which turns back its head toward a nude man, with hair standing up on end, who holds with both hands a long rod-like implement. The heads of the lions are represented as if seen from above; the heads of the antelope and the bull are in profile. The design is so closely interwoven that there is no need for "filling motives" between the figures. The first half of the Early Dynastic period.

No. 2. (Museo Profano, no. 6185). Black basalt cylinder seal. 34 x 23 mm.

An almost perfectly antithetical composition. A lion, standing erect on its hind legs, is turned to right, but twists its head backwards and opens its mouth to roar. The lion stretches out its forepaws to seize a rearing man-headed bull, who turns back his head towards the centre to face a second man-headed bull who is attacked by a lion which bites the bull's foreleg. In the rear between the two lions there is a crescent above a star set upon a long staff with a triangular butt. The lower part of the design with the feet of the animals is obliterated. Akkadian period.

No. 3. (Museo Profano, no. 6182). Basalt cylinder seal. 33 x 20 mm.

A composition consisting of two groups which balance one another without being strictly antithetical. A Nude Hero, whose only vesture is a triple girdle with one end hanging down over his thigh, grasps a rearing buffalo by the horn and by one foreleg. A bull-man seizes the forepaws of a rearing lion. Behind the groups is the space reserved for the inscription in three columns. Below the inscription there is a tree growing upon a mound; a small bull rears on the left side of the mound. The top of the tree with its three branches encroaches upon the field of the inscription, but the head of the bull is obliterated by the text. This specimen seems to be the only known example of an Akkadian seal where the subject of the sacred tree with one of the more usual two animals is introduced below the inscription. The seal is badly worn; consequently, the inscription is not easy to read, but seems to be as follows:

- |                                    |                  |
|------------------------------------|------------------|
| 1. <i>lugal-ta-bar</i>             | "Lugal-ta-bar,   |
| 2. <i>dingir-ra(?) -ni-x . . .</i> | . . . . .        |
| 3. <i>dumu lugal-ù-ka</i>          | Son of Lugal-ù." |

Akkadian period.

No. 4. (Museo Profano, no. 6184). Dolerite cylinder seal. 30 x 18 mm.

A bearded figure stands facing to right; his hair is rolled up at the nape of his neck, and he wears a horned cap and a short skirt reaching just above his knees. He raises one hand above his head as if brandishing a weapon, and in the other hand, also held aloft, he holds a hooked implement. His raised left leg crosses the neck of a bull which sinks to its knees under the assault of this divinity and a companion who stands behind the bull and grasps the animal's tail with his left hand. This second divinity has long hair hanging down between his shoulders in a twisted coil, and wears a horned headdress and a skirt reaching below his knees. In his raised right hand he seems to hold a hooked implement with which he touches the curious erection supported on the bull's back. This erection consists of eight parallel vertical lines, graduated in height from the middle to the sides, each pair being connected by a



FIG. 1.—No. 6187



FIG. 2.—No. 6185



FIG. 3.—No. 6182



FIG. 4.—No. 6184



FIG. 5.—No. 6183

horizontal line at the top, so that the construction resembles a ziggurat. Beyond this scene is the inscription, and below it are three small figures of divinities, the two outer ones facing towards the one who stands in the middle. All three are dressed alike in a horned cap and a flounced robe; they all raise their arms aloft, but the purpose of their action is uncertain, owing to the worn condition of the seal. No other cylinder seal can be cited which represents the same enigmatical subject, although it is evidently an Akkadian version of some well known myth. The only other representation of the subject as yet known is found on a much damaged gypsum stele of the Isin-Larsa period from the palace at Mari (Parrot, *Syria* xx, 1939, pp. 18-19, pl. V, 3).<sup>3</sup> The scene, carved in relief on one side of the stele, is in the reverse order from that depicted on the seal. It shows a bull with the erection on its back sinking to its knees. A divine figure at the animal's head does not stand, but kneels, and behind him on the right stands another figure holding out two objects. An arm, stretching down from the broken portion of the stele above, ends in a hand grasping an object directed to the left. On the extreme right a trunk-like object has been interpreted as a figure on a bigger scale with both arms raised in the attitude of a caryatid, an attitude resembling that of the small figures below the inscription on the seal. No convincing explanation of the subject has been offered; evidently it depicted some myth well known in the northern region of Mesopotamia, as it was represented at Nineveh, and again, many centuries later, at Mari. The inscription is almost illegible, and only a few signs can be tentatively deciphered:

- |   |                                  |
|---|----------------------------------|
| 1. a- <u>hu</u> (?)- <u>hu</u> (?)      | "A- <u>hu</u> (?)- <u>hu</u> (?) |
| 2. (. . .)- <u>ki</u> (?)- <u>me-ga</u> | ?                                |
| 3. (. . . . .)                          | ?                                |

Akkadian period.

No. 5. (Museo Profano, no. 6183). Haematite cylinder seal. 23 x 11 mm.

A man with a shaven head and face, who wears a fringed shawl, raises one hand in token of reverence and is led forward by a goddess who grasps his wrist. She is clad in a cap with one pair of horns, and a robe with vertical folds. She also holds up one hand, and advances to right towards a goddess seated, facing to left, upon a cubic seat. This goddess has a horned cap and a flounced robe, and with one hand she holds up a small bowl. In front of her is a crescent, and there is a ground-line below the scene. The inscription is in three columns:

- |                            |                    |
|----------------------------|--------------------|
| 1. <i>šar-ru-ì-lì</i>      | "Šarru-ili,        |
| 2. <i>dumu puzur-ma-ma</i> | son of Puzur-Mama, |
| 3. PA.TE-si                | the <i>ensi</i> ." |

Third Dynasty of Ur.

No. 6. (Museo Profano, no. 6188). Haematite cylinder seal. 21 x 12 mm.

A goddess, wearing a horned cap and a flounced robe, stands facing to right in an attitude of supplication with both hands raised. Behind her is the so-called "*libra*," which is more probably a ritual vessel, with a small vase above it; in front of her there are another little vase below and a crouching ape above. The goddess intercedes for a man, wearing a turban and a fringed shawl, who stands with folded hands before a bearded god seated facing to left upon a stool covered with flounced stuff. The god wears a turban and a heavy mantle, and holds up a small cup. In front of him there are a bandy-legged mannikin, a crescent, and a dot indicating the sun-disk; behind him a crescent on a tall coiled shaft stands between him and a short-clad attendant who stands upon a high base and holds in one hand a tumbler-like vessel and in the other a pail. The theme of a supplicating goddess presenting a worshipper to a seated figure wearing a turban is not uncommon, and has been explained as a presentation to a deified king. Time of the First Dynasty of Babylon.

No. 7. (Museo Profano, no. 6186). Steatite cylinder seal. 20 x 10 mm.

A rearing winged dragon faces to right and grapples with an antelope which turns its head backward in an attempt to escape. Between them is a bird directed downwards, but with its long neck and head bent back and upwards. From the right a lion approaches to attack the antelope. Behind the lion are a big scorpion placed vertically and a bird flying to left, depicted as if seen from above. The attenuated bodies of the animals, the curious aspect of the birds, and the rhythmical flow of the composition imply that this seal belongs to the category of seals of the peripheral regions. It is difficult to date it accurately; but it may be attributed approximately to the second half of the second millennium.

<sup>3</sup> Cf. E. de Porada, *RA*. xxxvi, 1940, p. 96 f.



FIG. 6.—No. 6188



FIG. 7.—No. 6186



FIG. 8.—No. 6190



FIG. 9.—No. 6189

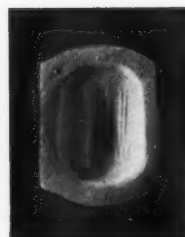


FIG. 10.—No. 6193



FIG. 11.—No. 6172



FIG. 12.—No. 6192

No. 8. (Museo Profano, no. 6190). Steatite cylinder seal. 24 x 11 mm.

A composite creature walks to right. It has the head of a bearded man, the wings and body of a bird, the tail of a scorpion, and two legs ending in lion's paws. The tuft of feathers protruding from its chest is an abbreviated version of the second wing, thus rendered in faulty perspective and incorrect anatomy in a clumsy attempt to mask the transition from the human to the animal forms. It is followed by a bull whose mane and ribs are indicated by hatched lines. The animal trots forward with one foreleg bent at the knee. A star and a crescent are visible in the field, the first above the bull's back, the second in front of the composite creature. A single line at the top and bottom delimits the field. The closest parallel to this subject is afforded by a seal in Brussels (Speleers, *Cat. des Intailles*, p. 185, no. 569). It shows the bull in the same attitude, except that its tail is raised and curves over its back; the composite creature, which has a bird's tail instead of that of a scorpion, turns his head to look back at the bull. This example reveals clearly that the tuft of feathers is really the second wing. These seals may be placed among the Assyrian seals treated in linear style, and may be attributed to the first quarter of the first millennium.

No. 9. (Museo Profano, no. 6189). Rock crystal cylinder seal. 27 x 12 mm.

An antithetical composition in which two winged beings stand facing one another with a six-pointed star between them. These divine beings are bearded, and their thick, evenly waved hair is without head-covering; they both wear a garment with a deep fringe. They stand in the attitude of the divine attendants who minister to the sacred tree, for in one lowered hand they hold a little pail, which is now almost obliterated, and in the raised hand they seem to hold a "pine-cone." A duplicate of this scene is given by a fragmentary seal impression found at Kish (de Genouillac, *Kish* ii, p. 23, pl. XII, 8). Neo-Babylonian work of the first millennium.

No. 10. (Museo Profano, no. 6193). Conoid stamp-seal of creamy, dark-veined marble. 23 x 17 x 12 mm.

The octagonal convex base is engraved with a scene of a bearded man who stands in an attitude of reverence with one hand raised in front of a base or altar, upon which are a spear and two parallel rods, the so-called "*stylus*." Neo-Babylonian period.

In addition to these Babylonian seals and the fourteen Sassanian seals there are two amulets which are included here because they both belong to the archaic period of Sumerian art, and illustrate the representative nature of this small collection and the skill with which it was formed.

No. 11. (Museo Profano, No. 6172). An amulet of white marble in the shape of a frog. Greatest length 28 mm., greatest width 23 mm. The photograph was taken from a cast of the object.

The extreme simplification of the forms eliminates all details such as eyes or legs. The little object is even more summarily modelled underneath, and it is bisected by a raised strip extending for its whole length; this ridge is pierced from side to side near the creature's "legs," so that the amulet could be threaded upon a string. Jemdet Nasr period.

No. 12. (Museo Profano, no 12). A lapis lazuli amulet. 15 x 20 mm. The photograph is taken from a cast of the object.

It represents two bulls side by side. The heads are in high relief, and a beard of locks of hair ending in spiral curls spreads round under the chins of both animals. The bodies of the bulls are not indicated, for they merge into the background of the relief. In the space between the bulls' heads two holes are pierced vertically and in parallel fashion from top to bottom through the thickness of the slab, so that the amulet could be strung on a necklet. Similar figurines of lapis lazuli have been found at Ur in the "Royal Cemetery" (Woolley, *Ur Excav.* ii, pl. 142, U. 11776), and at Tell Asmar in the Akkadian palace, where they formed part of a hoard of jewelry, most of which belonged to an earlier epoch (Frankfort, *Oriental Inst. Communications*, no. 17, 1934, p. 36, fig. 28). There are one or two other specimens of unknown provenance in private collections. The necklace found at Tell Asmar has been restrung to show how the pendant could be secured (Frankfort, *op. cit.*, fig. 29). The artificial beards which hang beneath the chins of the bulls imply that the creatures were supernatural, and thus gave a mystical significance to the amulet. The last part of the Early Dynastic period.

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## SUTOR RESUTUS

IN *AJA.* 1940, pp. 213-221, in a discussion of sculptured foot-wear, I maintained, among other things, that no examples of a notch or incurving between the great and second toes have so far come to light which can be dated earlier than around 300 B.C. This fact, if established, is obviously useful as a criterion of date. In a reply to my article, Margarete Bieber<sup>1</sup> takes exception to the conclusion, and tries to adduce some examples of soles having the incurving and dating from the fifth and fourth centuries B.C. These examples fall into two classes, Roman copies and Greek originals.

Her Greek originals are all Attic grave stelae. In examining the photographs to which she refers, I was forced to the conclusion that either Miss Bieber had mis-

understood the nature of the incurving, or had herself examined these monuments with insufficient care, for in no instance did I find the notch in question. The sandal in pl. 34 of Conze,<sup>2</sup> which I illustrate here (fig. 1), has a rather angular sole, with straight front, and two corners to carry the line around the outside of the foot, where the sole is usually rounded. There is a curve in the outer line of the stela which might be mistaken for an incurving in the sandal. Her next example is Diepolder,<sup>3</sup> pl. 5, the stela of Mnesagora in the monastery of the Agion Asomaton in Athens, of which I have seen the original. The right sandal has a chip out of the stone at about the place where the incurving would come, but this



FIG. 1.—SANDAL ON ATTIC GRAVE RELIEF  
(CONZE, *Attische Grabreliefs* I, PL. 34)

break does not go all the way through the sole, and must be due to damage: the sole of the left sandal is straight. Diepolder, pl. 52, 1 (the stela of Hagnostrate in the National Museum in Athens) has a straight, angular sole on the right foot; the left foot is advanced and the large toe is worn, but there are remains of a straight surface, and it is unlikely that there was any incurving. The stela of Archestrata in Leyden<sup>4</sup> shows no incurving, nor does the tombstone of a man with his dog in Naples.<sup>5</sup> If these are the only Greek originals which Miss Bieber can bring against me, my generalization may surely stand.

The matter of Roman copies is somewhat more complicated. It has long been agreed that they are not necessarily very accurate reproductions of the originals, especially with regard to minor details. Of the extant copies of the Athena Parthenos,

<sup>1</sup> *AJA.* 1941, pp. 62-3.

<sup>2</sup> Conze, *Attische Grabreliefs* I, 1893.

<sup>3</sup> Hans Diepolder, *Die Attischen Grabreliefs des 5. u. 4. Jahrhunderts v. Chr.*, Berlin, 1931.

<sup>4</sup> *Rijksmuseum te Leiden: Griekenland*, p. 16.

<sup>5</sup> Gerhart Rodenwaldt, *Das Relief bei den Griechen*, Berlin 1923, pl. 15.

for example, one, the Varvakeion statuette,<sup>6</sup> has high, squarish soles of two thicknesses; the Patras copy<sup>7</sup> has thin, shaped soles of only one thickness, and the Lenormant statuette<sup>8</sup> seems to have no sandals at all. More pertinent is a full-sized statue, such as the Eirene and Ploutos: the copy of this work in Munich<sup>9</sup> has a heavy high sole, made of a single thickness of material, with a straight front; the strap between the toes is carved. The copy in the Metropolitan Museum in New York<sup>10</sup> has a sole of two thicknesses, and no straps are represented. In view of such divergences in copies of the same work, it is surely unsafe to deduce details of the original from any one copy. Until, therefore, an original is found bearing the incurving, we may suppose that this characteristic, where it appears in copies of fifth- and fourth-century statues, is part of a later style, added in ignorance, or as embellishment, by the copyist.

To the points raised by Miss Bieber in her final paragraph, I would reply briefly as follows: The "Praxitelean" Aphrodite of Ostia is a later work in the style of, but by no means contemporary with Praxiteles.<sup>11</sup> On the Lateran Sophokles<sup>12</sup> (which is, of course, a later copy), the strap between the toes is not, as she says it is, combined with the cross strap, but proceeds, undivided, under the overfall. Both the Lateran Sophokles and the Naples Aischines<sup>13</sup> have a distinctively Roman adaptation of the composite sandal — narrow overfall, fastened down near its free end, with the long loops of the tie clearly indicated. The Vatican Demosthenes<sup>14</sup> shows a more Greek aspect of this shoe, with no overfall — a narrow network laced over the instep with broad straps, very much like the Mausollos shoe. This latter, as I pointed out,<sup>15</sup> is an example not of a composite sandal, but of a shoe made of network, treated like fabric. Finally, it seems doubtful whether the *krepis* was, in the fifth century at least, "besonders der antike Riemenschuh:"<sup>16</sup> the word means base or platform, and the outstanding example of *krepis* was the foot-gear of the Parthenos, with soles thick enough to be decorated by a frieze. The *krepis*, if we may judge from fifth-century representations of Athena, as well as the goddesses of the Parthenon frieze, was the regular sandal of the period. Thongs it had, but it was a sandal, rather than a shoe, and there is nothing even in the late story of Apelles and the shoemaker to contradict this identification.

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<sup>6</sup> Gisela M.A. Richter, *The Sculpture and Sculptors of the Greeks*, New Haven 1930, fig. 599.

<sup>7</sup> Richter, *op. cit.*, fig. 603.

<sup>8</sup> *Ibid.*, fig. 601.

<sup>9</sup> *Ibid.*, fig. 659.

<sup>10</sup> *Ibid.*, fig. 660.

<sup>11</sup> See Klein, *Praxiteles*, Leipzig, 1898, p. 293.

<sup>12</sup> Hekler, *Greek and Roman Portraits*, 52.

<sup>13</sup> *Ibid.*, 53.

<sup>14</sup> *Ibid.*, 56.

<sup>15</sup> *AJA.* 1940, p. 215.

<sup>16</sup> Bieber, in *RE.* xi, p. 1711, s.v. *krepis*.

## A NOTE ON THE PAINTER OF THE CERBERUS AMPHORA OF WASHINGTON UNIVERSITY

*Addenda to AJA. XLIV, 1940, pp. 187-211*

THE Cerberus amphora in St. Louis<sup>1</sup> could be attributed to the school of one of the better known vase-painters of the black-figured style, whom Professor J. D. Beazley has named the "Antimenes Painter," from the inscription on the Leyden hydria from Vulci.<sup>2</sup> The style of this painter has clearly been defined and a number of vases illustrating it have been brought together by Professor Beazley in his usual masterful way. To this master have been attributed five amphorae now in American Collections; four of these are in the Royal Ontario Museum of Archaeology in Toronto and one in the collection of Professor David M. Robinson in Baltimore.<sup>3</sup> In three of the vases attributed to the Antimenes painter we find represented the story of Herakles and Cerberus,<sup>4</sup> on three more, that of Theseus and the Minotaur,<sup>5</sup> and on a neck-amphora from Corneto appears the love name TIMOΘEOΣ KΑΛΟΣ.<sup>6</sup> Of course, the stories of Herakles and of Theseus were popular with black-figured painters and two or more contemporary masters could use the same love-name; the subject matter, therefore, and the love-name are not sufficient to prove the identity of our vase-painter, in spite of the fact that the love-name Timotheos is known from only two vases, the Cerberus amphora and the amphora from Corneto which is attributed to the Antimenes painter. The comparison, however, of the representations on the St. Louis amphora with similar or different representations on vases attributed to the Antimenes painter will bring forth a good number of similarities. Yet there are a number of details which on our vase are rendered differently, differences small indeed, but sufficient to force us to conclude that the compositions on the Cerberus amphora in St. Louis were executed in the general style of the Antimenes painter, but not by that master.

For example, the ankles in our figures are not indicated by the short curved lines usual in figures by the Antimenes painter. The markings of the outer and of the inner legs; the rendering of the knees and of the elbows in the shape of the Greek letter

<sup>1</sup> Discussed above, pp. 192-199 and figs. 8-10.

<sup>2</sup> *JHS*. xlvii, 1927, pp. 63-92; Roulez, *Vases peints du Musée de Leyde*, pl. 19; Pfuhl, *MuZ*. iii, fig. 286.

<sup>3</sup> Beazley, *op. cit.*, p. 90 and no. 6; D. M. Robinson and C. G. Harcum, *A Catalogue of the Greek Vases in the Royal Ontario Museum of Archaeology, Toronto*, pp. 121-139 and Vases nos. 302, 303, 305, 314; *CVA*. Robinson Collection i, pl. 28 and pp. 44-45. The Baltimore vase and Toronto, no. 314, very kindly were brought to my attention by Professor Robinson, who believes that the Cerberus amphora is by the Antimenes painter.

<sup>4</sup> Neck-amphorae: Louvre F228 from Etruria (Beazley 12) and Corneto R. C. 976, from Corneto (Beazley 37); Hydria: Würzburg 135 (Beazley 61), Gerhard, *AV*. pl. XL.

<sup>5</sup> Neck-amphorae: Frankfort, from Corneto (Beazley 23); London B247, from Vulci (Beazley 41); Hydria: Berlin 1891, from Etruria (Beazley 54).

<sup>6</sup> Corneto R. C. 1635, from Corneto (Beazley 35); Klein, *Die Griechischen Vasen mit Lieblingsinschriften*, p. 36; Robinson-Fluck, *A Study of Greek Love-Names*, p. 187. Ours is the second known vase on which this love-name appears, and not the third, as might be construed from our statement on p. 197.

theta, cut in half; the small mouths; the simple rendering of the ears, differ from such details peculiar to the paintings of that master. Furthermore, the figures on the Cerberus amphora are not so short and heavy, although they possess the spirit which animates the figures by the great painter.<sup>7</sup> A comparison of the composition of Theseus killing the Minotaur on our vase with the same theme represented on the neck-amphora B-247 in the British Museum,<sup>8</sup> or that of Herakles and Cerberus with the representation on the Würzburg hydria no. 135, will bring out very clearly and easily these differences. We believe that these differences and the many similarities, not only in details, but also in their arrangement, such as the rendering of the knee and elbow in a similar manner, the twisted feet, the markings placed on the legs, arms, etc., justify the conclusion that the Cerberus amphora in the collection of Washington University is in the general style of the Antimenes painter. It should be placed, therefore, in the last quarter of the sixth century.

Perhaps it would be of some interest to remark that on 30 of the 65 vases attributed to the Antimenes painter we find represented Herakles and his exploits. The Cerberus story is represented only three times, while the exploit with the Nemean Lion is repeated 12 times. This reflects the popularity which the exploits of Herakles enjoyed in the sixth century and indicates the preference which was shown for the story of the lion. S. B. Luce, in his exhaustive study of the theme, was able to list 302 black-figured vases in which this exploit is represented.<sup>9</sup>

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<sup>7</sup> The characteristic way in which these details are rendered by the Antimenes painter has been set forth by Professor Beazley and is described on p. 65 of his article.

<sup>8</sup> Or with that on the Frankfort neck-amphora, which is almost a duplicate of the London vase. That vase-painters repeated compositions with minor changes was lately emphasized again by A. Merlin in the *MonPiot*. xxxv, 1935-1936, pp. 78-79, but the compositions on the London Vase and on our vase differ so radically that they must be the work of different painters working under a similar technical tradition.

<sup>9</sup> *AJA*. xx, 1916, pp. 460-467.

## NOTES ON MEGARON ROOFS

IN A recent article in this JOURNAL the evidence with regard to the form of the roof of the Helladic megaron, the prototype of the Greek temple, has been ably marshalled by E. Baldwin Smith,<sup>1</sup> with conclusions (favoring the gabled form) which to my mind are completely acceptable. The importance of the question is not to be measured solely by the desirability of ascertaining the outward appearance of this specific architectural type, for it is integrally bound up with the whole problem of racial origins and with the survivals of dominant characteristics of the prehistoric peoples of the Aegean area, not to mention the evidence bearing upon the parallel phenomena in historic times, during the earliest stages of the evolution of the Greek temple. For these reasons it seems appropriate to add a few comments.

In citing the advocates of flat versus sloping roofs, particularly with reference to the culminating stages at Mycenae and Tiryns, Smith points out that they "outweigh in number and authority the defenders of the gable tradition" by five to four. In making this count, and in observing that "most modern archaeologists not only assume that the Mycenaean megara had flat roofs, either with or without clere-stories, but also favor flat roofs for any newly discovered pre-Hellenic house," he was obviously reckoning primarily with special articles or books on the subject or period. In order to make the vote more nearly even, at least quantitatively, I may be pardoned for citing my own considered statement, wherein, reviewing the whole subject for the first time since the new discoveries made at Tiryns, Mycenae, and Korakou, I decided adversely to the German, English, and American excavators of these three sites and in favor of the continuous development of the sloping megaron roof.<sup>2</sup>

In examining the plans which Smith has so conveniently brought together at uniform scale (figs. 11-12, 15-16, 28-40, 42), I note a few points which may further emphasize their similarity. Thus the parallel megara of Troy II (fig. 11) seem too sophisticated in their use of the classical opisthodomos; Dörpfeld restored this feature in megara A and B (where the evidence is lacking) on the analogy of megara E (at the left) and F (not shown in fig. 11). But in each of these megara only one unmistakable porch survives, the assumed front in A and B, the assumed back in E and F, as characterized by the special terminal anta blocks. From their positions with respect to surrounding structures, it seems quite as probable that the surviving porch of F was at the front,<sup>3</sup> and that E was a rear propylon,<sup>4</sup> or even a minor building facing toward such a rear gate rather than an actual megaron (which is restored solely on the analogy of B). Conversely, the lateral extensions at the rear of megaron B (where anta blocks are lacking) would seem once to have enframed a rear room,

<sup>1</sup> *AJA.* xlv, 1942, pp. 99-118.

<sup>2</sup> *The Architecture of Ancient Greece*, 1927, pp. 13-14, 15-19, 30-36, pl. VIII. Cf. also J. P. Harland, *AJA.* xlv, 1941, p. 91.

<sup>3</sup> Under these circumstances, megaron F would be backed up against the left-hand wall of the palace yard, and would look out over the citadel wall.

<sup>4</sup> It would thus be at the rear left-hand corner of the palace yard, one wall aligning with the actual enclosing wall.



while in the case of megaron A there is no evidence whatever for projections beyond the rear wall of the main room, everything (including the rear wall) having been destroyed by Schliemann's great trench. As for the tremendous span in megaron A, which had so troubled Holland,<sup>5</sup> it is not unreasonable to suppose that this would have been diminished by a row of central supports (as Smith suggests) which at this early period might have been of such ephemeral construction as to have left either no traces at all (as conjectured by Blegen in the case of the "House of the pithoi" at Zygouries)<sup>6</sup> or merely informal bases which might have been overlooked in these early days of excavation. Similarly at Korakou (fig. 36), I have always believed that the large rear room, of which such scanty traces remain, had a central column. And in the case of the megaron at Eleusis (fig. 39) it is now known that such central columns existed, the base of one having been discovered.<sup>7</sup>

At one point the exposition seems to require modification, lest the complications resulting from the grouping of the houses at Thermi in Lesbos (figs. 12-13)—implying that the roofs of some houses, if gabled, must have drained against the walls of others—should be taken as positive evidence for flat roofs. It seems to me that these difficulties can be met on the assumption that such houses were coupled in pairs (two-family houses), having not formal gable roofs, but pent or lean-to roofs draining in opposite directions into yards between the pairs of houses.<sup>8</sup> For such lean-to roofs we have not only the long series of historical analogies in Greek stoas, but also the tradition of the Chiot roof as mentioned in an inscription from this very island,<sup>9</sup> possibly derived from lopsided forerunners in this island environment.

Lastly, something should be said with regard to the actual remains of the roofs. Smith has noted many of the allusions (we may add Dörpfeld for Troy and Wace for Mycenae)<sup>10</sup> to masses of dried mud with the impressions of saplings, reeds, and leaves, and is apparently as mystified as I have always been when claims are advanced that such masses imply horizontality rather than inclination.<sup>11</sup> As he observes, there is sufficient evidence in other lands for the use of clay on sloping roofs; and he aptly asks "how men came to develop roof tiles of baked clay, if it were not the result of having first applied clay to their sloping roofs." It is precisely at this point that recent evidence, which he does not bring into the discussion, throws brilliant light upon the problem. For not only are we to infer, from analogy and from the ground plans themselves, that the roofs were sloping and covered with clay from

<sup>5</sup> Holland, *AJA.* xxiv, 1920, p. 328.

<sup>6</sup> Blegen, *Zygouries*, p. 13.

<sup>7</sup> Kourouniotis, *Δελτ.* xiv, 1931/32, πρ. 2-3, fig. 3; *ARW.* xxxii, 1935, pp. 56-56, pl. I. This latest restoration by Kourouniotis and Travlos shows two columns inside the megaron, but it is evident that a third should be restored in the middle of the front porch.

<sup>8</sup> The distinction between yards and houses is admittedly difficult, since Miss Lamb notes that some of the fixed hearths must have been out in the open air.

<sup>9</sup> Inscription of Mitylene (*IG.* xii 2, 14; Lattmann, *Griechische Bauinschriften*, pp. 129-130, in *Dissertationes philologicae Argentoratenses selectae* xiii, 1908). Admittedly the exact form of this Chiot roof is uncertain; it may have been either a pent roof or a half gable or a lopsided gable roof, but in any case its supporting walls were of unequal height.

<sup>10</sup> Dörpfeld, *Troja und Ilion*, p. 41; Wace, *BSA.* xxv, 1921-23, p. 232, fig. 45.

<sup>11</sup> I do not believe that Smith has rightly interpreted Blegen's description of a mass from the "House of the pithoi" (*Zygouries*, p. 13, fig. 12), where the angle is not that between wall and roof, but rather between two layers of the roof itself (exactly as with the lower and upper boarding of a modern wooden floor).

time immemorial, but we now also have tangible proof that the transition from sloping roofs of unbaked clay to sloping roofs tiled with baked clay was made within the Helladic age. Fragments of baked roof tiles have been discovered in the Early Helladic III round building at Tiryns,<sup>12</sup> in Middle Helladic strata at Dorion (Malthi) in Messenia<sup>13</sup> and perhaps also in a second-hand use in a Middle Helladic grave at Asine in Argolis;<sup>14</sup> they have also been discovered in Late Helladic III débris on the north slope of the Athenian Acropolis<sup>15</sup> and at Berbati in Argolis,<sup>16</sup> as well as in Late Helladic III graves at Berbati and at Thebes.<sup>17</sup> Such tiles demand sloping roofs for their support and presuppose a long anterior development with more primitive sloping construction.<sup>18</sup> It seems to me that the question is no longer debatable.<sup>19</sup>

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<sup>12</sup> Müller, *Tiryns* iii, pp. 85-86, fig. 51. See also A. Elford, *AJA.* xlv, 1941, p. 95.

<sup>13</sup> Valmin, *The Swedish Messenia Expedition*, pp. 43, 44, 100, 110, 119, 121, 129, 141, 147, 149, 174 (Weinberg rightly complains that these fragments are not illustrated or described, *AJA.* xlv, 1940, p. 157).

<sup>14</sup> Frödin and Persson, *Asine*, p. 117 (grave 20); it must be admitted that these examples are not as convincing as the others.

<sup>15</sup> Broneer, *Hesperia* viii, 1939, p. 409, figs. 90-91 b-c.

<sup>16</sup> Akerström, *VI Kongr. Archäologie Berlin*, 1939, pp. 297-298, pl. 20 b.

<sup>17</sup> Keramopoulos, *Δελτ.* iii, 1917, pp. 25, 28, 76-77, fig. 58.

<sup>18</sup> These tiles are always made by hand and are poorly baked; their extreme fragility, and also their unexpectedness, may account for the scarcity of such evidence from earlier excavations.

<sup>19</sup> This evidence also eliminates the last support for the extremely dubious flat or slightly domical mud roof postulated by Dörpfeld for the earliest Doric temples (in *Hist. u. phil. Aufsätze E. Curtius gewidmet*, 1884, pp. 146-147 (summary by Marsh, *AJA.* i, 1885, p. 51), and *Alt-Olympia*, pp. 150-151, fig. 36), and adopted in some of the recent discussions (e.g., Bell, *Hellenic Architecture*, 1920, p. 72, fig.).

## RECENT PUBLICATIONS ON S. MARIA MAGGIORE IN ROME

THE last years have brought forth quite a number of publications on the basilica of S. Maria Maggiore in Rome. Signor Biagetti, who for the last decade has been in charge of the restorations of the mosaics of the church, has published his observations in several reports<sup>1</sup> and Monsignore Biasiotti has contributed several additions to the long series of his studies on the basilica.<sup>2</sup> The Rev. de Bruyne opened an interesting discussion on the original arrangement of the mosaics<sup>3</sup> and finally the Rev. Schuchert has published recently the first small volume of his study on the basilica and on its mosaics.<sup>4</sup>

As one will recall, the problems connected with the church are manifold and complicated. One set of questions refers to the date of the edifice which has been assigned to the second, the fourth and the fifth centuries respectively. The problem of the date of the structure is in turn tied up with the question of whether it was erected by Pope Liberius (352-66) and only decorated by Pope Sixtus III (432-40), or whether Sixtus III was responsible for constructing as well as decorating the church. Another set of questions refers to the original aspect of the structure, including the arrangement of the mosaics and a third one to the date of the mosaics. While one large group of scholars is convinced that all the mosaics, those at the triumphal arch, as well as those in the nave, belong to one and the same period, they cannot agree as to their date which again is given as the second, the fourth and the fifth century respectively. Another group sees a definite contrast in the style of the mosaics in the nave and on the triumphal arch and assigns the former series to the fourth and the latter to the fifth century.

As far as the construction is concerned, one thing at least has become clear during these last years: the entire nave, including the triumphal arch and the two aisles, forms one structural unit and is considerably earlier in date than the present transept and apse. The clerestory walls of the nave and the wall of the triumphal arch are bound together and they have the same masonry. They belong to the same building period and this period was the fifth century.<sup>5</sup> One could possibly suggest an even more precise date, based on the character of the masonry of these parts; it consists of brick-work, with particularly high mortar joints, which makes for an average of only 7 bricks and 6 mortar-beds in every 50 cm., a brick-work which is closely related to that of the clerestory walls of S. Sabina, built between 420 and 430. In buildings

<sup>1</sup> B. Biagetti, "Indagini intorno all' antica abside della basilica di Santa Maria Maggiore," *Atti, Serie III, Rend. Pont. Accad.* ix, 1933, pp. 33ff.; *idem*, "Osservazioni sui mosaici della navata centrale di S. Maria Maggiore," *ibidem* xiii, 1937, pp. 101 ff.; *idem*, "Intorno ai mosaici della navata centrale nella Basilica Liberiana," *ibidem* xv, 1939, pp. 47 ff.

<sup>2</sup> G. Biasiotti, "Una descrizione della basilica di S. Maria Maggiore nel secolo XII," *Atti del III Congresso Nazionale di Studi Romani*, Bologna, 1935, ii, pp. 5 ff.; *idem*, *La Basilica del Liberio sull' Esquilino, erroneamente identificata con la Basilica di S. Maria Maggiore*, Rome, 1935.

<sup>3</sup> L. de Bruyne, "Intorno ai mosaici della navata di S. Maria Maggiore," *Rivista di Archeologia Cristiana* xv, 1938, pp. 281 ff.

<sup>4</sup> A. Schuchert, "S. Maria Maggiore zu Rom" i, *Studi di Antichità Cristiana* xv, Città del Vaticano, 1939 (to be followed by two more volumes).

<sup>5</sup> Schuchert, *op. cit.*, pp. 92 f.

of the fourth decade of the fifth century, e.g., the Lateran Baptistery, or S. Lorenzo in Lucina, the mortar joints are considerably lower.

Corresponding to the number of intercolumnia in the nave, each clerestory wall of S. Maria Maggiore was pierced by 21 windows. Only half of these windows is preserved, the other half was walled up during the Middle Ages (not as has been supposed in the thirteenth, but in the ninth century, as is proved by their masonry). Like the masonry, the width of the windows and their distances from each other point to a date very close to that of S. Sabina, to the third decade of the fifth century. This is slightly earlier than the date 432-40, which has been accepted for S. Maria Maggiore by the champions of a fifth-century construction period, such as Biasiotti and Schuchert. This date 432-40 was favored because of the two inscriptions of Sixtus III,<sup>6</sup> one of which existed over the doors of the entrance wall as late as the sixteenth century,<sup>7</sup> while the other one is still preserved on the mosaic of the triumphal arch. Yet the mosaic decoration of an edifice is usually slightly later than the building itself and if the mosaics, because of the inscriptions of Sixtus III, are to be dated 432-40, the walls of the edifice would *ipso facto* slightly antedate them. Indeed, it is not even quite certain whether or not at least the mosaic of the triumphal arch itself is somewhat earlier than the dedicatory inscription of Sixtus III. Schuchert has pointed to the fact which had been known before that the inscription was inserted into the pre-existing mosaic; it covers the left foot of Saint Peter and the right foot of Saint Paul, who flank the throne in the center of the arch. Schuchert's explanation is that this is due to an afterthought. While this is quite possible, one might as well assume that the mosaic was already completed when Sixtus in 432 ascended the Holy See and that he appropriated it by inserting his inscription; such a procedure would find a parallel in his appropriating for himself the church of S. Pietro in Vincoli, which can be proved to have been started before his pontificate. All indications point to the fact that the wall of the triumphal arch and the walls of the clerestory must be dated between 420 and 430.

On the other hand, the transept and the apse of the present edifice are of the thirteenth century. As early as 1915, Biasiotti had remarked that the brick masonry was entirely different from that of the clerestory and that it showed all the characteristics of the High Middle Ages.<sup>8</sup> Since the mosaics of the apse and the frescoes in the transept were executed under Nicolaus IV, between 1288 and 1292, this approximate date can be assigned also to the construction of these parts. Schuchert's analysis definitely confirms this fact: the present transept is of the thirteenth century and certainly does not belong to the original Early Christian church of S. Maria Maggiore. If this is the case, however, one wonders about the original aspect

<sup>6</sup> The account which the *Liber Pontificalis* gives in the Life of Sixtus III (ed. L. Duchesne, i, pp. 232, 235, n. 2): *fecit basilicam sanctae Mariae quae ab antiquis Liberii cognominabatur juxta Macellum Liviae* is not very reliable, since this *Vita* is a result of later compilations. For bibliography on this subject see Schuchert, *op. cit.*, pp. 43 ff.

<sup>7</sup> O. Panvinio, *Le sette chiese di Roma*, Rome, 1570, mentions that he still saw part of the inscription. It disappeared completely in the restoration of 1593, as mentioned by J. Ciampini, *Vetera Monumenta*, i, Rome, 1690, p. 198. See Schuchert's elaborate critical list of sources, *op. cit.*, pp. 15 f., 22 ff.

<sup>8</sup> G. Biasiotti, "La basilica di S. Maria Maggiore a Roma. L'antica fabbrica," *BdA*, 1915, pp. 20 ff., 136 ff.



of the east part of the Early Christian church. Excavations and observations made in 1932 give definite proof<sup>9</sup> that the nave originally terminated in an apse, which projected immediately from the triumphal arch.<sup>10</sup> First, as Schuchert points out, the triumphal arch shows traces of having continued directly into an apse: its intrados forms an obtuse, not a right, angle with the front of the arch; secondly, the edge of the intrados towards the nave is slightly rounded, while the one towards the present transept was evidently cut when the originally existing apse was demolished; thirdly, Schuchert has been able to point to the existence of traces of the apse mosaic along the edge of the intrados towards the present transept. From all these indications, the existence of an apse could be assumed. In 1932 its remnants were excavated: it is a perfectly semicircular apse, the diameter of which corresponds exactly to the span of the triumphal arch. Its wall in the foundations is 1.35 m. strong and consists of a masonry of *opus mixtum*, with regularly alternating layers of tufa and bricks. Above this foundation wall the remnants of the apse wall proper were found, rising to an average height of 8 cm.; they are only 95–97 cm. thick, which corresponds to the width of the clerestory wall. The corners of the apse are connected by a straight span wall of *opus mixtum* (fig. 1).

The discovery of the apse is of the highest importance, yet Schuchert is not quite right, I am afraid, in his interpretation of this important find. His theory is that the apse is older than the nave and the aisles of the existing church, that it is, in short, the last remnant of an edifice erected by Pope Liberius between 352 and 366, an edifice which was destroyed when the present church was erected by Sixtus III between 432 and 440. The reasons for this assumption, according to Schuchert, are: a) the left pier which carries the triumphal arch and which rises from the left corner of the excavated apse is at its base reinforced by a brick wall. This brick wall extends along the nave side of the pier, where it continues even down into the foundation zone so as to form the foundation wall at the left corner of the pier. The bricks used in this strengthening wall are, according to Schuchert, similar to those used in the fifth-century clerestory of the nave.<sup>11</sup> Since the masonry of the apse is of *opus mixtum*, Schuchert assumes it to be earlier than this brick construction. b) Schuchert saw the foundation wall of the left colonnade of the nave as well as the terminating wall of the left aisle in the interior of a tomb at the original end of the left aisle. According to him, both these walls consist of brick-work identical with the brick-work of the clerestory wall. Again the use of brick-work would go to prove that the apse of *opus mixtum* was earlier in date and since the clerestory wall is certainly of the fifth century, the apse would belong to the fourth. Logical as Schuchert's conclusions seem to be at first sight, the observations on which they are based are not correct: a) I am rather inclined to be suspicious of the reinforcing wall of the pier to the left of the triumphal arch. The brick-work in question, as Schuchert remarks, is certainly later than the *opus mixtum* used in the foundation wall of the apse. Indeed, I am tempted to think that it is very much later. Schuchert's photographs show that it

<sup>9</sup> *Idem*, *Osservatore Romano*, January 13, 1933.

<sup>10</sup> F. Strozzi, in a letter dated December 30, 1747 (Vallic., T. 86, f. 12 ff.) mentions that at this time this apse had been found already; see Biasiotti, *BdA*. 1915, pp. 145 ff., n. 2.

<sup>11</sup> Schuchert, *op. cit.*, p. 130.



is of completely irregular masonry, not to say rubble work. It consists of small pieces of bricks of different size and different thickness which are arranged in irregular layers (fig. 1). It is entirely different from the regular brick-work of the clerestory wall. Masonry of this kind does not occur anywhere in Rome before the fifteenth and sixteenth centuries. I fear that I must conclude that this reinforcing wall was erected in the sixteenth century, when the triumphal arch was remodelled, together with the whole church. b) The observations on which Schuchert's second argument is based are likewise not correct and this error is of far greater consequence. In 1937 and 1938 I had the opportunity to enter not only the tomb at the end of the left aisle mentioned by Schuchert, but all the tombs throughout the church, in order to study the foundation walls of the colonnades of the nave as well as the lateral and terminating walls of the aisles. None of these walls, including those mentioned by Schuchert, consists of brick-work. They are all of *opus mixtum* (fig. 2), exactly the same *opus mixtum* which is used in the foundation walls of the newly excavated apse. There is no reason whatsoever to separate chronologically the foundation walls of the apse and those of the rest of the church. From the façade to the apse the foundation walls of the whole edifice are of the same material and they belong to the same period.

Unless one argues that all these foundation walls belonged to an edifice which antedated S. Maria Maggiore, but was identical in site, plan and size (an argument which would somehow recall the old stories about Shakespeare's plays being written by a homonymous contemporary born the same day at Stratford-on-Avon) there remains only one logical solution: all the foundation walls of S. Maria Maggiore, including those of the apse, belong to the same fifth-century structure, the edifice which still exists. This tallies with the observation made by Schuchert that the remains of the apse wall proper, which are still preserved on top of the foundation wall, equal in width the clerestory walls. Indeed, that the whole apse is contemporaneous with the rest of the church is evidenced by one more fact: Schuchert's contention that the remnants of the apse wall proper consist of *opus mixtum* is not quite correct. Its outer side is certainly constructed of that material; yet its inner curve seems to consist of brick-work (as far as I can see from the originals of the photographs used for Schuchert's illustrations 38 and 40). Such a contrast in the technique of the masonry, which may seem disturbing at first sight, can easily be explained. In Roman fifth-century buildings it is quite usual to find the use of *opus mixtum* either in the outer wall of the apse, or else in both the outer and inner apse wall and in all the foundation walls, and the use of brick in the clerestory walls. This is done simply in order that *opus mixtum* can be employed for those parts which must be particularly strong and brick-work for those especially light and smooth. At S. Lorenzo in Lucina (432-40), e.g., not only most of the foundation walls, but also the apse as well as the corners of the clerestory, were constructed in *opus mixtum*, while the window piers and the top wall above the windows were executed in brick-work.<sup>12</sup> At S. Vitale (401-17) the apse, the walls of the aisles and the corners of the clerestory are of *opus mixtum*, while the windows again consist of

<sup>12</sup> R. Krautheimer and W. Frankl, "Recent discoveries in Roman churches," *AJA*. xliii, 1939, pp. 388 ff.



FIG. 1.—ROME, S. MARIA MAGGIORE, SPAN WALL (IN FOREGROUND)  
AND LEFT CORNER OF EXCAVATED APSE



FIG. 2.—ROME, S. MARIA MAGGIORE, FOUNDATION WALLS OF TERMINATING WALL  
(TO THE LEFT) AND OF COLONNADE OF THE LEFT AISLE

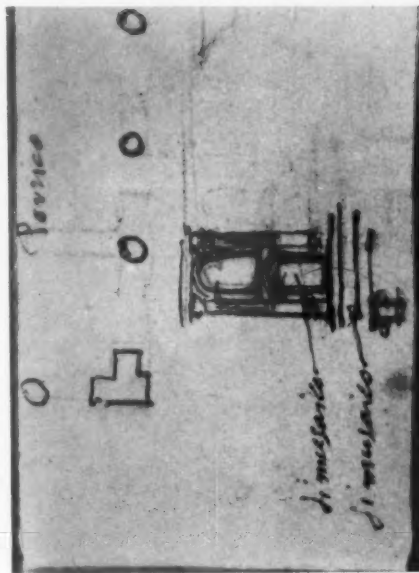


FIG. 3.—S. MARIA MAGGIORE, CLERESTORY WALL. DRAWING,  
SALLUSTIO PERUZZI (FLORENCE, UFFIZI, DIS. ARCH. 660A) CA. 1550

brick-work.<sup>13</sup> Thus, it is safe to assume that at S. Maria Maggiore, also, purely technical reasons were responsible for the difference in masonry used in the clerestory on the one hand, and in the outer apse wall and the foundation walls on the other. The apse of *opus mixtum*, which caused Schuchert so much trouble, in reality fits completely into the picture of fifth-century architecture in Rome.

Thus, as the plan of the fifth-century church can be considered ascertained, it remains to investigate the interior aspect of this edifice, particularly that of the nave and its mosaics. The reader will recall that quite some argument has risen during these last years with regard to this question. At present the nave in its upper parts is articulated by a series of pilasters which rise from the architrave above every column. These pilasters separate the single bays of the clerestory, each of which contains a window. Below each window is one of the famous mosaic panels, surrounded by a sixteenth-century stucco frame. It had always been assumed that the pilasters were a stucco decoration, laid out by Cardinal Pinelli in the late sixteenth century. Nobody, however, had doubted that the mosaic panels in between were of the fourth or fifth century and in their original places, until in 1935, when restoring the left wall of the nave, Signor Biagetti made a startling discovery. While removing the panels from the walls, he found that they showed on their backs imprints, the negatives of masonry, which seemed to prove that they had been transferred. This discovery prompted Biagetti to venture the hypothesis<sup>14</sup> that the mosaics were arranged there only in the sixteenth century, together with the stucco decoration, and, since the mosaics were undoubtedly of Early Christian date, he assumed that they had been transplanted from some other Early Christian edifice. De Bruyne rightly refuted this latter part of the hypothesis.<sup>15</sup> He conjectured that the traces of transfer could be explained by assuming that the mosaics had been removed under Cardinal Pinelli and put back in their original places after having been restored. In 1936, I had ample opportunity to study the masonry imprints appearing on the rear of the mosaic panels and their measurements proved to be exactly the same as the ones of the clerestory brick-work of the nave. This confirmed de Bruyne's assumptions. They were confirmed even more conclusively by observations which were made in 1938 by Biagetti when restoring the mosaics of the right wall of the nave. He found that the mosaics of this wall had never been removed from the original site, a fact which prompted Biagetti to withdraw his original statement.<sup>16</sup> On the other hand, de Bruyne had assumed that the mosaics originally had not been separated from each other by pilasters, but that they had formed a continuous band. This suggestion has been refuted by Biagetti, as well as by Schuchert—and by both with good reasons: two drawings, one of the late fifteenth, the other one of the sixteenth century (fig. 3), both published by Bartoli,<sup>17</sup> show the state of the nave before the late sixteenth-century transformations: a series of pilasters which exactly

<sup>13</sup> E. Junyent, "Recenti scoperte nella chiesa titolare di San Vitale," *Rivista di Archeologia Cristiana* xvi, 1939, pp. 130 ff. Cf. E. Vielliard, *ibid.*, xii, 1935, pp. 103 ff. and R. Krautheimer, *ibid.* xiii, 1936, p. 146. Neither at S. Lorenzo in Lucina, nor at S. Vitale is it possible to see the inner surface of the apse wall.

<sup>14</sup> *RendPontAccad.* xiii, 1937, pp. 101 ff.; see above, n. 1.

<sup>15</sup> See above, n. 3.

<sup>16</sup> *RendPontAccad.* xv, 1939, pp. 47 ff.; see above, n. 1.

<sup>17</sup> A. Bartoli, *I monumenti antichi di Roma nei disegni degli Uffizi di Firenze*, Florence, 1915, i, pl. II, fig. 3; iv, pl. CCCLXXVI, fig. 650 (dis. arch. 1864 A; 660 A).

corresponds to the present one, rose above the architrave and separated the bays of the clerestory wall from one another; between these pilasters are the windows surrounded by a stucco decoration and underneath the windows the mosaics, framed by aediculas with alternately segment-shaped and triangular pediments.<sup>18</sup> Along the top of the wall the pilasters carried a stucco frieze, remnants of which were found by Biagetti in 1932. De Bruyne interpreted these drawings as showing a re-decoration, which he supposed to have been executed in the fifteenth century, a hypothesis to which neither Schuchert nor Biagetti could agree. But nobody, including myself, much as I was convinced that the decoration was not of the fifteenth century, but original, could prove this point. Four years ago, however, Biagetti was kind enough to give me his permission and help in carrying out an investigation.<sup>19</sup> One of the present sixteenth-century stucco pilasters on the right clerestory wall was uncovered and we found that the core of the present pilaster consists of bricks which protrude ca. 5 cm. from the surface of the wall. This core of the pilaster is 63 cm. wide, only 11 cm. narrower than the present one, and it is bonded to the masonry of the wall. Thus there can be no more doubt that the pilasters were erected together with the clerestory wall of the nave. They were merely refinished with a new stucco coat when the edifice was restored in the late sixteenth century. Since the pilasters are original, there can be no doubt that the mosaics likewise were always arranged in separate panels—not in one continuous band. It is also logical to assume that the stucco frieze found by Biagetti formed part of the original decoration, an assumption which is confirmed by its style. Since the Renaissance drawings have been proved by the two finds of the original pilasters and the original stucco frieze to give the fifth- and not any fifteenth-century aspect of the church, there is good reason to assume that also the stucco aediculas which these drawings show framing the mosaics formed part of the original decoration and were replaced only in the late sixteenth century by the present square frames.

Thus the last years have clarified the history as well as the aspect of the original basilica of S. Maria Maggiore. It seems safe to state that this church was a basilica with one nave and two aisles without a transept and with one apse immediately joining the nave. Its decoration, which can be almost completely reconstructed from the existing mosaics, pilasters, stucco frieze remnants and the drawings of the fifteenth and sixteenth centuries, shows a particularly strong "antique" design, very plastic and clearly organized. It corresponds to the general tenor of the mosaics, which are a last representative of a classical conception in Early Christian art.<sup>1</sup>

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<sup>18</sup> I had these drawings in mind when I referred to aediculas around the mosaics in my article: "Contributi per la Storia della Basilica di S. Lorenzo fuori le mura," *Rivista di Archeologia Cristiana* xi, 1934, p. 307, a remark which at the time drew some comment from E. Weigand, in *BZ.* 35, 1935, p. 492 f. I did not suspect Weigand of being unaware of the existence of these drawings. They are particularly important in confirming his criticism of de Bruyne's thesis, *BZ.* 39, 1939, pp. 294 ff.

<sup>19</sup> A detailed report on this investigation will be given by Biagetti in the course of his further publications on the restorations at S. Maria Maggiore.



## C. SULPICIUS GALBA, PROCONSUL OF ACHAIA

### I

THE recent discovery <sup>1</sup> that the *praenomen* of Sulpicius Galba, the consul of 5 B.C. and father of the emperor Galba, was Gaius and not Servius as hitherto commonly assumed, recalls attention to the Augustan inscriptions which at Delphi, Samos and Athens honor as benefactor a certain Gaius Sulpicius (Galba). For the latter have often been connected with the father or son of the consul of 5 B.C., on the grounds that the *praenomen* Gaius precluded any identification with that man himself. Even those who did not share the conviction that the *praenomen* of the consul of 5 B.C. had to be Servius have accepted the dating of the editors as if the lettering, rather than unwarranted deductions from the *praenomen*, established the date. The lettering, of course, cannot define the period to a decade. In each case the epigraphist knew only that he was dealing with a document roughly of the Augustan Age.

According to the usual interpretation, three different men are involved in these inscriptions. Yet it is surely more straightforward to assume that all the inscriptions concern the same friend of Greece, rather than two or three contemporaries. It will repay us at least to clear away misunderstandings and to reopen the question.

The pertinent documents are six:

1 DELPHI. E. Bourguet, *De rebus Delphicis imperatoriae aetatis*, Montepessulano, 1905, p. 22 (an incomplete edition); H. Pomtow, *Klio* xvii, 1921, p. 178, no. 162a; G. Crönert, *SEG*. i, 1923, 169.

	[Ἄγαθῇ]	Τύχη	
	[Ἄρχοντος Ἀντιφίλο]ν τοῦ Γοργίλου, μηνὸς Βυ		
	[σίου, βουλευόντων] [Ἀρι]στοκλέα τοῦ Φιλονίκου, Δ[ά]		
	[μῶνος τοῦ Πο]λεμάρχ[ο]υ, ἔδοξε τᾷ πόλει τῶν Δ[ελ]		
5	[φῶν· ἐπεὶ Γ]άιος Σολπίκιος Γάλβα υἱὸς [Γάλβας, ἀνὴρ]		
	[καλὸς καὶ ἀγαθός, ἀπὸ τῆς πρώτης ἀρχῆς -----]		
	[.....] τῆς τε Ῥωμαίων ἡγευ[-----]		
	[ἐπιμε]λείας, εὐσεβῶς μὲν διακείμενος ποτὶ τὸν Ἀ[		
	[πόλλω]να τὸν Πύθιον, [εὐνοικῶς δὲ καὶ ποτὶ τὰν πόλιν]		
10	[ἀμῶν, πε]ρί τοι[-----]		
	[.....] τῶν [-----]		
	[-----]		
	[-----] οὐδ [-----]		
	[-----] τῶν ἐντ[-----]		
15	[-----] πάτριον Δελφ[οῖς -----]		
	[-----] ὑπὸ τῆς συνκ[λήτου -----]		
	[-----]ν συντ[-----]		
	[-----] λο[-----]		
	[-----]		

<sup>1</sup> G. Mancini, "Fasti consolari e censorii ed elenco di vicomagistri, rinvenuti in Via Marmorata," *BullComm*. lxiii, 1935, pp. 35-79; A. Degraffi, "Su i fasti di magistri vici rinvenuti in Via Marmorata," *ibidem*, pp. 173-178.



In line 5 the form Γάλβα without the final sigma ought to be a genitive. This, of course, would not be good Roman usage, but I should not change it to the nominative,<sup>2</sup> because the style with the father's *praenomen*, following rather than preceding the word υἱός, does not recommend itself either. It seems preferable to read Γάλβα υἱός [Γάλβας or Γάλβα υἱός ἀνθύπατος, depending upon the length of the lacuna, which cannot be gauged satisfactorily because publication occurred without either photograph or drawing. The other complements are adopted from, or based on, those of Pomtow. The last letters in line 7 are here given exactly as reported, but I wonder if the true reading is not ἡγεμονίας.

As the first editor pointed out, the date is determined approximately by mention of the archon Ἀντίφιλος Γοργίλου who is known from a manumission document<sup>3</sup> to have held office during the priesthood of Philon and Polemarchus, i.e. in priesthood XXII. The Sulpicius Galba, honored in the decree, could therefore, Bourguet argued, not be the man who became consul in 22 A.D., but might very well be the one who became consul in 5 B.C. As late as 1901, Pomtow<sup>4</sup> had still dated the archon Ἀντίφιλος Γοργίλου in 14/3 B.C., but subsequently he discovered a new fragment of the decree and was able to establish the *praenomen* Gaius for Sulpicius. This discovery, he argued, rendered inadmissible the identification with the consul of 5 B.C., whose *praenomen* he mistakenly thought was Servius. He now identified the C. Sulpicius Galba of the decree with the historian, the father of the man who became consul in 5 B.C., and this identification has been accepted by later commentators. Crönert proceeded to restore the document with perfectly possible, but purely conjectural supplements, which represented it as discussing the historical work of Pomtow's candidate.<sup>5</sup> It is interesting that he could do so. The decree cannot date far from the year 13 B.C., no matter who was honored therein.<sup>6</sup>

2 SAMOS. M. Schede, *AM.* xliv, 1919, p. 38, no. 28 (from Wiegand's copy); J. J. E. Hondius, *SEG.* i, 1923, 391; G. Lafaye, *IGR.* iv, 1927, 1723.

Ὁ δῆμος  
Γάιον Σολπίκιον [Γάλβαν]  
τὸν ἀνθύπατο[ν Ἀχαΐας]  
Ἡρη

Schede identified the recipient of the honor with the man who was consul in 22 A.D., of whom Suetonius (*Galba*, 3) wrote: *prohibitus a Tiberio sortiri anno suo proconsulatum voluntaria morte obiit*. Precisely because of this statement Lafaye rejected the identification. All editors and commentators seem to have assumed

<sup>2</sup> There were, of course, Greek masculine names ending in alpha (cf. E. Schwyzler, *Dialectorum Graecarum exempla epigraphica potiora*, 1923, 143, with commentary, and 441), and it is barely possible that the Greek declension of Roman names which ended in -a may have vacillated for a while.

<sup>3</sup> *BCH.* xxii, 1898, p. 73.

<sup>4</sup> *RE* iv, col. 2695.

<sup>5</sup> Lines 6 ff.: ἀπὸ τῆς πρώτης ἀρχῆς τῆς τῶν Ἑλλήνων πολιτείας, τῆς τε Ῥωμαίων ἡγεμονίας μετὰ πάσης ἐπιμελείας, κτλ. Line 14: τῆς αὐτοῦ συντάξεως?

<sup>6</sup> Priesthood XXII dates according to Pomtow (*RE.* iv, col. 2695) from 17/16 through 10/9 B.C. Further discoveries have not displaced priesthood XXII, which is anchored by the synchronism between the Delphian archon Timoleon and the Athenian archon Theophilus of 11/10 B.C. More recent discussions of Delphian chronology are by M. G. Colin, *Fouilles de Delphes* iii, 2, 1913, pp. 392-396; G. Daux, *Delphes au II<sup>e</sup> et au I<sup>er</sup> siècle*, Paris, E. de Boccard, 1936, pp. 73-209; N. Valmin, *Fouilles de Delphes* iii, 6, 1939, pp. 131-143.

unnecessarily that because Samos belonged to the province of Asia the proconsul must have been the governor of that province. If he were the governor of Asia, the title ἀνθύπατον would have sufficed without the name of the province. Still there appears to have been no room for the name Ἡρη at the end of line 3, where, however, the single word Ἀχάτας, but not a long phrase like εὐνοίας ἔνεκα, can well have been engraved. A governor of Asia named C. Sulpicius is attested nowhere.

3 ATHENS. B. Tamaro, *Annuario* iv-v, 1921-1922, p. 65, with photograph; P. Graindor, *BCH.* li, 1927, 268 f.; [J. J. E. Hondius, *SEG.* iii, 1929, 244, addendum on p. 143; J. Kirchner, *IG.* ii<sup>2</sup>, 1935, 4157]; E. Groag, "Die römischen Reichsbeamten von Achaia bis auf Diokletian," *Akad. d. Wiss. in Wien, Schriften der Balkankommission*, Antiquarische Abt. ix, 1939, col. 19.

Ὁ δῆμος  
Γάιον Σολπίκιον [ -<sup>±</sup>5- ]  
ἄ[ν]θ[ύ]πατον καθ[ -<sup>±</sup>5- ]  
εὐνοίας ἔνεκ[ -<sup>±</sup>5- ]  
εἰς ἑατόν

It must first be explained that the indications of the length of the lacunae are my own conjectures after study of the photograph. These calculations are made on the assumption that the phrase Ὁ δῆμος is centered over the inscription. The phrase occasionally occurs much to the left or to the right of a vertical axis through the center of the inscription, but it is normally centered. Letters might be crowded at the ends or small spaces left vacant in order to conclude each line with a complete word.

The inscription obviously continued to the right. In line 4 either form ἔνεκα or ἔνεκεν would be admissible in this period. Line 2 would have continued with the filiation or the *cognomen*, or even both. To Bruna Tamaro's question if Sulpicius were not perhaps identical with the consul of 22 A.D., Graindor replied in the affirmative on account of the *praenomen* and restored the document Γάιον Σολπίκιον [Σερβίου υἱόν] ἄ[ν]θ[ύ]πατον καθ' [ὑπομνηματισμόν?] εὐνοίας ἔνεκ[εν καὶ εὐεργεσίας τῆς] εἰς ἑατόν. Groag altered the filiation to read [Γαίου υἱόν] but accepted the rest with approval for both interpretation and wording. If, however, the restoration of line 2 fills the lacuna correctly, then those of lines 3 and 4 do not, because of their length, and *vice versa*. Of course line 2 could be brought into closer conformity with the length of lines 3 and 4 by restoring Γαίου υἱόν Γάλβαν, but then the phrase Ὁ δῆμος would no longer be centered. The supplement καθ' [ὑπομνηματισμόν], moreover, seems to me unconvincing. The parallels concern monuments erected by private individuals,<sup>7</sup> and I doubt that the Demos would have had in this case to secure the permission of the Areopagus. At least none of the other monuments erected by the Demos are marked καθ' ὑπομνηματισμόν.

We might edit the text tentatively as follows:

Ὁ δῆμος  
Γάιον Σολπίκιον [Γάλβαν]  
ἄ[ν]θ[ύ]πατον καθ[ -<sup>±</sup>5- ]  
εὐνοίας ἔνεκ[εν τῆς]  
εἰς ἑατόν

<sup>7</sup> *IG.* ii<sup>2</sup> 3803, 3952, 4054. *IG.* ii<sup>2</sup> 5101 is not an exact parallel.

The *cognomen* can, of course, be used alone without the filiation as in *IG. ii<sup>2</sup> 4136*.

4 ATHENS: *Hesperia* iv, 1935, p. 60, no. 23 with photograph.

The reconstruction is problematical. For example:

[‘Ο δῆμος τὸν νέον Διόνυσον  
[ἀνέστησ]εν *vacat*  
*vacat*  
[Γάιον Σ]ολπίκιον  
[ἀνθύπατο]ν *vv*  
5 [τὸν εὐεργέ]την *v*

Here we have assumed a base for one statue.

The name Σολπίκιον is certain, and the restoration of a *praenomen* before it determines the length of all the lacunae to the left. With the *praenomen* Γάιον the base appears to be about 0.49 m. wide. Line 2 contains a verb in the third person singular like [ἀνέθηκ]εν or, with one letter more, [ἀνέστησ]εν, for a still longer expression like [εὐνοίας ἐνεκ]εν could scarcely be accommodated. The crucial question arises whether the κοινὸν τῶν περὶ τὸν Διόνυσον τεχνιτῶν is mentioned as the dedicant in line 1. I have failed to discover any suitable restoration with this sense: there is not room enough, no matter what *praenomen* be restored in line 3. Since the whole interpretation depends on the extent of the lacunae, I submit a drawing (figure 1) so that the reader may understand the epigraphical problem and judge for himself about the limits thereby imposed. Since reference to the Dionysiac artists appears to be excluded, and since the name of the god appears like that of Sulpicius in the accusative, it becomes tempting to identify the two and to see in Sulpicius a public benefactor and savior. Of the Athenians specifically it is recorded that they had hailed Alexander,<sup>8</sup> Demetrius Poliorcetes,<sup>9</sup> and Antony<sup>10</sup> as the New Dionysus, and, in general, the Greeks were very prodigal in bestowing such titles as the New Dionysus, the New Aphrodite, the New Ares, the New Demeter.<sup>11</sup> Dionysus was the liberator, the savior. As he entered Athens, the Dionysiac artists greeted Athenion, the envoy of Mithridates, as ἄγγελος τοῦ νέου Διονύσου,<sup>12</sup> for the Greeks at first saw in Mithridates their savior: *Mithridatem deum, illum patrem, illum conservatorem Asiae, illum Euhium, Nysium, Bacchum, Liberum nominabant*.<sup>13</sup>

<sup>8</sup> Diogenes Laertius vi, 63.

<sup>9</sup> Among other things the Dionysia at Athens were renamed the Demetria (Plutarch, *Demetrius* 12, 2), and he patterned himself on Dionysus (Plutarch, *Demetrius* 2, 2).

<sup>10</sup> Seneca the Elder, *Suasoriae*, i, 6: "nam cum Antonius vellet se Liberum patrem dici et hoc nomen statuis suis subscribi iuberet, habitu quoque et comitatu Liberum imitaretur, occurrerunt venienti ei Athenienses cum coniugibus et liberis et Διόνυσον salutaverunt." Antony is called the New Dionysus in an Athenian ephebic decree of 38/7 B.C., *IG. ii<sup>2</sup> 1043*, line 23. See also Cassius Dio, xlviii, 39, 2, and i, 15, 2; Ioannes Zonaras, x, 23. On Antony as Dionysus in general see K. Scott, *CP.* xxiv, 1929, pp. 133-141; L. R. Taylor, *The Divinity of the Roman Emperor*, 1931, ch. v; and W. W. Tarn, *JRS.* xxii, 1932, pp. 149-157.

<sup>11</sup> Examples are collected by P. Riewald, "De imperatorum Romanorum cum certis dis et comparatione et aequatione," *Dissertationes Halenses* xx, 1912, 265-344, especially 318-323. It might be added that at Athens also Antinous seems to have been honored as the New Dionysus, although for very different reasons. On this compare P. Graindor, *Athènes sous Hadrien*, Cairo, 1934, pp. 278 ff. and, with reference to *IG. ii<sup>2</sup> 3323*, p. 289.

<sup>12</sup> Poseidonius of Apamea, fr. 36, *FGHist.* ii, p. 244. Compare W. S. Ferguson, *Hellenistic Athens*, London, 1911, pp. 440-446.

<sup>13</sup> Cicero, *Pro Flacco*, 25.

But if we adopt this interpretation, we can no longer regard Sulpicius as, for example, an Italian *negotiator* in the Orient. He would have to be one of Rome's very great, a member of the illustrious Sulpician *gens*. In view of the other documents, it would be reasonable to identify this Sulpicius with the proconsul. The supplements proposed in the text accord perfectly with the epigraphical requirements of space and disposition. In line 4 the supplement [ἀνθύπατο]ν seems better adapted to the space than [Σερβίου υἱό]ν.

If, on the other hand, we assume a base for two statues with one name to the left and that of Sulpicius (still probably the proconsul) to the right, it would be possible

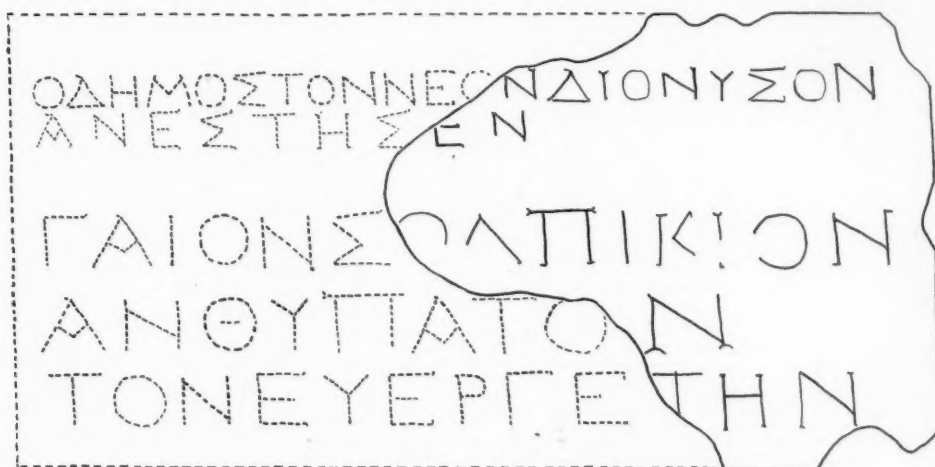


FIGURE 1. ONE RESTORATION OF THE INSCRIPTION NO. 4.

to consider for the first line some restoration like [Ἀγαθῇ Τύχῃ. Τὸ κοινὸν τῶν τεχνειτῶν τῶν περὶ τὸν Διόνυσον. The Athenians erected several such double bases for distinguished Romans: *IG. ii*<sup>2</sup> 4159 for Valerius Catulus and his mother, *IG. ii*<sup>2</sup> 4162 for C. and Cn. Calpurnii Pisones, *IG. ii*<sup>2</sup> 4163 for L. Calpurnius Piso and M. Licinius Frugi, *IG. ii*<sup>2</sup> 4185 for M. and L. Vipstani Galli.

5 ATHENS: *IG. ii*<sup>2</sup> 4237, where the earlier literature is cited.

Ὁ δῆμος  
Σολφικίαν Σερβ[ίου]  
Σολφικίου Γάλβα θυγατέρ[α]  
ἀρετῆς ἔνεκεν

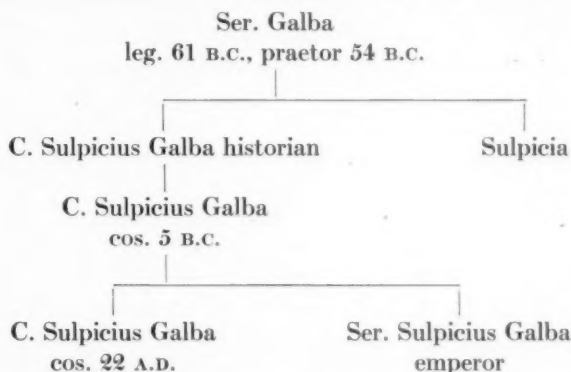
6 ATHENS: *IG. ii*<sup>2</sup> 4236, where the earlier literature is cited.

[Ὁ δ]ῆμος Σ[ολφικίαν]  
[Σερ]βίου Σολ[φικίου]  
[Γάλ]βα θυγα[τέρ]α  
[ἀρε]τῆς ἐν[εκεν]

For the restorations compare the foregoing.

## II

In order to identify the C. Sulpicius Galba at Delphi and the proconsul C. Sulpicius at Athens and Samos with one or two members of the great Sulpician *gens*, we must examine the family tree. The stemma which I here present differs from that presented by Fluss,<sup>14</sup> chiefly in the position assigned to Sulpicia and in the elimination of the *triumvir monetalis* Ser. Sulpicius, dated before 49 B.C. The latter was clearly a member of the *gens*, but since absolutely no evidence exists that, unless he was the praetor himself, he stood within a relationship of the first degree to any of these Sulpicii, we must leave him out of consideration. Because of his *praenomen*, he could not have been the brother of the praetor of 54 B.C., and it may even appear doubtful whether he was young enough to be the praetor's son.



For the age of each candidate we can work backwards from the emperor Galba, who is known to have been born between 6 and 3 B.C. The emperor's elder brother was consul suffectus in 22 A.D. A noble would probably have been rapidly advanced and might have held the consulship in his thirty-third year. It is reasonable to assume that the consul suffectus of 22 A.D. was born about 11 B.C. The emperor's father, who was consul suffectus in 5 B.C. probably in his thirty-third year or soon afterwards, may have been born around 38 B.C. Now we come to the crucial question about the historian. First of all, let us assume that he was born approximately thirty years before the date we calculated for the birth of his son. The historian accordingly was born about 68 B.C. He may have been two or three years younger. He cannot have been much older, for his father was still campaigning under Hirtius in 43 B.C. The historian's father, praetor in 54, was, as Münzer<sup>15</sup> argues, probably born in 94 B.C. About eighty-nine years separate the birth of Serv. Sulpicius and that of his great-grandson, the emperor. The generations are spaced almost exactly thirty years apart. Thus, from above and below, we are led to the period 68–65 B.C. for the birth of the historian.

The benefactor honored by the Delphian inscription around 13 B.C. is much more likely to have been a man of 55 than a man of 25 years. We may, therefore, while

<sup>14</sup> M. Fluss, *RE.*, s.v. *Sulpicius*, coll. 755 f.

<sup>15</sup> *RE.*, s.v. *Sulpicius* (61). A noble at this period would have secured the praetorship at the age of forty.



rejecting Pomtow's arguments, accept Pomtow's contention that it was indeed the historian. His filiation was given as Γάλβα υἱός instead of Σεργίου υἱός, because the father was generally called by the *cognomen* to avoid confusion with Ser. Sulpicius Rufus, a former governor.

Now we come to the question whether the proconsul C. Sulpicius (Galba) was the same man, or his son or his grandson. First of all, it is important to bear in mind that Achaia was a senatorial province of praetorian rank. If, as we have argued, his grandson was born around 11 B.C., he could not have held it at all, because Achaia ceased to be a senatorial province in 15 A.D., when he was just beginning his career. The historian's son, born about 38 B.C., could have been praetor in 8 B.C. If, as Marquardt<sup>16</sup> concluded, at least five years had to elapse between the praetorship and the governorship of a praetorian province, the historian's son graduated from praetorian rank before he would have been eligible for the post of proconsul of Achaia, and it appears that he, too, never would have been governor of Achaia.

Thus we are thrown back upon the historian as the proconsul of Achaia. Was he eligible for the appointment? *Avus clarior studiis quam dignitate—non enim egressus praeturae gradum—multiplicem nec incuriosam historiam edidit.*<sup>17</sup> Given his patrician *nobilitas*, the historian Galba did not advance very far, since he failed to reach the consulate or to receive any of the big military assignments, but he was a famous man just the same. The praetorship, however, he did reach, and as *praetorius* he was eligible for a minor governorship like that of Achaia.

From 23 to 13 B.C. no proconsuls are attested for Achaia, which was part of the eastern sphere administered by M. Agrippa.<sup>18</sup> In 13 B.C., or about the time of the Delphian inscription, Achaia became again a senatorial province of praetorian rank, and C. Sulpicius Galba, *clarior studiis quam dignitate*, was sent out as governor among the very first.<sup>19</sup>

In the two documents Nos. 5 and 6 the Athenians honor Sulpicia, daughter of Servius Sulpicius Galba, either because she was a close and dear relative of some benefactor or potential benefactor of Athens, or because she herself was a benefactor of Athens. Since, in the latter case, she would probably have been the companion of some man who occupied a recognized position, it comes to the same thing. Therefore, these two documents have a very real bearing on the case. In the absence of any mention of a husband, her man appears to have been a member of the Sulpician *gens*, presumably the proconsul honored by the Athenians in No. 3. She cannot, however, have been his daughter, because his *praenomen* was Gaius. But she could have been his sister. Any reconstruction which would represent her as a niece or cousin, with

<sup>16</sup> J. Marquardt, *Römische Staatsverwaltung* 12, 1881, pp. 545–547. The two cases, in which, according to Marquardt, consulares obtained praetorian provinces, have ceased to exist. Marquardt had misunderstood the order in which honors were enumerated.

<sup>17</sup> Suetonius, *Vita Galbae* 3, 3.  
<sup>18</sup> E. Groag, "Die römischen Reichsbeamten von Achaia bis auf Diokletian," *Akad. d. Wiss. in Wien, Schriften der Balkankommission*, Antiquarische Abt. ix, 1939, coll. 12 f.

<sup>19</sup> E. Groag, *op. cit.*, coll. 19–20, correctly assigned the Delphian inscription to the historian, but it is my opinion for the reasons just set forth that Groag like F. Münzer, *RE.*, s.v. *Sulpicius* (12), and M. Fluss, *RE.*, s.v. *Sulpicius* (53), erred in accepting Graindor's identification of the proconsul C. Sulpicius of the Athenian inscription No. 3 with the consul of 22 A.D., and that these very eminent scholars erred likewise in identifying the proconsul C. Sulpicius of the Samian inscription No. 2 with the consul of 5 B.C.

an otherwise unattested father named Servius Sulpicius Galba, has less to recommend it, because a niece or cousin has less chance of intimate connection than a sister, and because the assumption of an otherwise unrecorded Servius Galba is forced and unnecessary. If she was the sister, the proconsul emerges again as the son of Servius Sulpicius Galba, the praetor of 54 B.C. The proconsul, accordingly, was the historian. We do not need this evidence, but there it is anyway. And if No. 4 marked a double base, the missing second name may well have been Sulpicia's.

What else do we know about the proconsul? Consider his father. Servius Galba had been an energetic legate of Caesar in Gaul. Praetor in 54, he had failed in the consular elections for 49, and whether for this reason or not, he at the end turned against Caesar, in whose assassination he conspired. For this he later perished in the proscriptions. Scion of one of the great families, whose *elogia* constituted for the Roman of his time the authentic history of the Republic, the son, slightly older than Augustus himself, moved in an atmosphere dangerous and inhospitable to the families of the tyrannicides. Despite the brilliance of his patrician ancestry, he reached fifty without achieving the consulate. (The Galbae who in the next two generations cultivated the empress Livia advanced much further). Like Pollio, Labienus and Cassius Severus, C. Sulpicius Galba devoted himself to historical composition, but all his detailed and rather careful work<sup>20</sup> has perished like theirs, although it was still consulted and cited by Juba of Mauretania,<sup>21</sup> Pliny the Elder,<sup>22</sup> and Orosius.<sup>23</sup>

His proconsulate of Achaia in 13 B.C., or shortly afterwards, assumes importance if he appears in the inscription No. 4 in the free city of Athens as recipient of divine honors of the type bestowed upon Alexander, Antigonus and Demetrius, Ptolemy IV, Ptolemy X, Ptolemy XIII, Antiochus VI, Antiochus XII, Mithridates and Antony.<sup>24</sup> Little wonder that he did not advance any further. Augustus and his family eschewed the title New Dionysus. Having ridiculed Antony for demanding recognition in this form, Augustus could not accept it for himself.<sup>25</sup> The reappearance of the title New Dionysus five generations later after the names of Hadrian and Antoninus Pius constituted one more link between the monarchy of the second century and that of the Hellenistic kings and of Antony.

Under the principate, imperial acclamations, triumphs, divine honors, eligibility for *spolia opima* were absorbed by the emperor as his own and were withdrawn from the reach of other leaders of the Roman army and people. But as the principate only gradually took shape, these extraordinary distinctions were not suddenly suppressed in 27 B.C. No edict marked the end of the old customs. As the distance between the First Citizen and the other *principes* slowly widened, objections were raised in certain cases, and the custom of bestowing such honors became obsolete, or the emperor let his displeasure be inferred, and men feared to offer or to receive the same excessive honors again.

In the past, Roman proconsuls, as heirs of the Hellenistic kings, had frequently received divine honors in one way or another,<sup>26</sup> and it is not surprising that the

<sup>20</sup> Suetonius, *Galba* 3: "*multiplicem nec incuriosam historiam edidit.*" <sup>21</sup> Plutarch, *Romulus* 17.

<sup>22</sup> *N.H.* i, 36. <sup>23</sup> Orosius, *Historiae adversus paganos* v, 23, 9, but probably at second hand.

<sup>24</sup> P. Riewald, *op. cit.*, pp. 318-323.

<sup>25</sup> K. Scott, *CP.* xxiv, 1929, 139-140.

<sup>26</sup> L. R. Taylor, *The Divinity of the Roman Emperor*, 1931, pp. 37-42.

Greeks continued after Actium to express in the conventional manner occasional loyalty and gratitude to the representatives of Rome. The cult of benefactors had strong roots. Even Greek fellow-citizens, such as Theophanes and Potamon at Mytilene in the Ciceronian Period, were the recipients of such exaggerated expressions of gratitude. Sometime after 9 B.C. Paullus Fabius Maximus, "apparently the last proconsul to receive divine honors,"<sup>27</sup> was associated with Apollo Smintheus at Alexandria in the Troad. Agrippa and the princes of the royal family continued to be proclaimed gods under Augustus. In 18 A.D. Germanicus and his family were so honored at Mytilene, but in the following year, when the populace of Alexandria ad Aegyptum greeted him with divine acclamations, he deprecated the homage in terms<sup>28</sup> worth quoting: "The good will which you always exhibit when you see me, I accept. But your divine acclamations, which provoke envy, I absolutely decline. For they are suitable to him alone who is really the savior and benefactor of the human race, namely to my father and to his mother, who is my grandmother." Then follows a passage which has defied the most distinguished papyrologists of our time:<sup>29</sup>

τὰ δὲ ἡμέτερα εἰ[----] ἐστὶν τῆς ἐκείνων θεϊότητος.

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<sup>27</sup> L. R. Taylor, *op. cit.*, p. 273, with reference to *IGR.* iv, 244.

<sup>28</sup> U. von Wilamowitz-Moellendorff and F. Zucker, "Zwei Edikte des Germanicus auf einem Papyrus des Berliner Museums" *SBA.* xxxviii, 1911, pp. 794-821. See also U. Wilcken, "Zum Germanicus Papyrus," *Hermes* lxiii, 1928, pp. 48-65.

<sup>29</sup> Lines 42-43. It is all there and clearly visible in the photograph. Zucker and Wilamowitz read it ἐν ὑποπρορετιᾷ, which they admitted was nonsense and which Wilhelm tried to explain. This reading, however, was rejected even on palaeographical grounds by Wilcken, *op. cit.*, p. 795, together with new attempts by other students. A. S. Hunt and C. C. Edgar in the Loeb Classical Library, *Select Papyri* ii, 1934, pp. 76-79, have come no further.

## THE ARCUATED LINTEL AND ITS SYMBOLIC INTERPRETATION IN LATE ANTIQUE ART<sup>1</sup>

BEFORE entering into a discussion of the arcuated lintel, a definition of the term must be stated. The simplest manner of presenting such a definition is to illustrate an outstanding example of the scheme, as, for instance, the façade of the second century A.D. Arch at Bosrah (fig. 1).<sup>2</sup> An applied architrave is seen here running along the face of the wall above the pilasters and curving up into an arch in the center without interruption. This freely upswung moulding is what is meant by the words "arcuated lintel" in the discussion below.

Edmund Weigand, in two discussions of this motif,<sup>3</sup> has succeeded in tracing it back to the structures at Khorsabad and has further suggested that an Assyrian origin is to be expected. It is my purpose to prove this suggestion and then to trace the use of the scheme on monumental architecture, with the hope of explaining its use on the famous Madrid and Nicosia plates,<sup>4</sup> as well as upon other late antique objects. If Weigand had used a fuller publication of the doors of Balawat than that offered by Unger (*Zum Bronzetor von Balawat*, Leipzig, 1912), he, too, could have offered proof of his own suggestion. The plates shown in L. W. King's publication of these bronzes in 1915 demonstrate the fact that the motif was used commonly in Northern Syria in the mid-ninth century B.C.<sup>5</sup> Here over the gates of a town, described by the accompanying inscription as belonging to the Unkians of Northern Syria, can be seen a running moulding which travels horizontally along the walls flanking the barrel-vaulted entrance and is lifted without interruption over the archivolt of this vault (fig. 2; cf. fig. 3). A somewhat earlier example of the same scheme can be seen on a stone relief in the British Museum, dated to the reign of Ashurnasirpal (885-860 B.C.).<sup>6</sup> Here a crow-stepped frieze runs in the same manner as the plain ones on the Balawat doors, and it is noteworthy that the inscription places the town concerned in Syria.

These earliest examples of the motif definitely place its *locus originalis* in Syria, since none of the other numerous city-gates which occur upon these and similar reliefs demonstrate its use, and also show it strictly confined to the decoration of city-gates. This latter observation will be of importance later.

About a century later than the examples just cited, the fully developed form of the arcuated lintel is found on the façades of the three gates which admitted vehicular

<sup>1</sup> This paper is partially the result of seminar discussions with Dr. Lehmann-Hartleben and others at the New York University Institute of Fine Arts, 1938-39.

<sup>2</sup> H. C. Butler, *Syria Dig. II, Sec. A*, ill. 200.

<sup>3</sup> *Strena Buliciana*, Zagreb/Split, 1924, pp. 97 ff.; *Wiener Jahrbuch fuer Kunstgeschichte* v, 1928, pp. 112 ff.

<sup>4</sup> For the Madrid plate see A. Odobesco, *Le Trésor de Pétroussa* i, p. 168, fig. 73; R. Delbrueck, *Consular Diptychen*, pp. 235-242; Dalton, *Byzantine Art and Archaeology*, p. 571, fig. 356. For the Nicosia plates, see *Archaeologia* 60, part 1, 1906, pp. 1-24 with plates; *Burlington Magazine* x, pp. 355-362, with plates; Dalton, *op. cit.*, p. 102, fig. 60; p. 104, fig. 61 and p. 573, fig. 358.

<sup>5</sup> L. W. King, *Bronze Reliefs from the Gates of Shalmaneser*, London, 1915, p. 25 and pls. xxv, xxvi, xxx.

<sup>6</sup> H. R. Hall, *Babylonian and Assyrian Sculpture in the British Museum*, London, 1928, p. 7 and pl. xv.



FIG. 1.—BOSRAH, WEST CITY-GATE (H. C. BUTLER,  
*Architecture and Other Arts*, FIG. 121)



FIG. 2.—RELIEFS FROM THE BALAWAT DOORS (L. W. KING,  
*Bronze Reliefs from the Gates of Shalmaneser*, PL. XXVI)



FIG. 3.—(L. W. KING, *Bronze Reliefs from the Gates  
of Shalmaneser*, PL. XXX)



traffic at Dur-Shurakin, dated 721–605 B.C. (fig. 4).<sup>7</sup> The gates are formed of barrel vaults, resting upon the bodies of winged bulls whose heads and foreparts form part of the façade decoration. The end of the vault on the façade has a decorated archivolt, which is prolonged horizontally without interruption along the flanking walls – a situation identical with that seen on the Balawat doors, but with the addition of the supporting bulls which give the impression of columns bearing an architrave.

The Ishtar Gate at Babylon, dated in the early sixth century B.C., shows a scheme similar to that at Dur-Shurakin, but has omitted the supporting lions.<sup>8</sup> This is the latest example of the arcuated lintel which it has been possible to find in the Near East of pre-classical date. All the pre-classical examples taken together afford overwhelming proof that the arcuated lintel was invented in Syria sometime in the ninth century B.C. and was confined in its use to the decoration of gateways. Weigand's suggestion that an Assyrian origin is to be expected becomes fact, at least chronologically, if not racially.

A further development of the scheme, which in a manner of speaking, classicizes that of Dur-Shurakin, is to be found on the façade of the gateway of the temple of Dushara at Si' in Syria (fig. 5), dated ca. 33–9 B.C. on inscriptional evidence.<sup>9</sup> On this building the entire classical entablature is arched without interruption over the central opening of the façade. The arch itself rests upon columns, which thus assume the function which was suggested by the earlier Assyrian winged bulls. The vocabulary of this façade is classical, but the grammatical construction is Eastern, if this analogy is permitted.

How to account for the sudden reappearance of the arcuated lintel after an apparent lapse of half a millennium is a problem which cannot as yet be solved. Lost monuments may hold the answer, or it may be found that the powerful Nabataean empire which was responsible for the building at Si' deliberately sought to recreate old motifs. At any rate, from this moment on, the scheme is used over and over again with a peculiar restriction to gateways and façades of religious buildings which is striking.

A side current in the development of this architectural device can be seen in the interior of the south gate of the Agora of Ephesos (fig. 6), dated 4 B.C.<sup>10</sup> A rather abbreviated and playful example of an arcuated lintel is used here over the double conch niches in the east and west walls of the passageway. The monumental unifying effect which has been so striking in all previous examples cited is lost here and it is a surprise to find the motif used in an interior, although, in a sense, the gateway has no real interior. The derivation from the more monumental type as seen at Si' is, however, beyond doubt. Roman architects were apparently well satisfied with this solution for crowning a niche and it occurs often upon buildings of the second

<sup>7</sup> E. Bell, *Early Architecture in Western Asia*, London, 1924, fig. p. 143.

<sup>8</sup> R. Paribeni, *Architettura dell'Oriente Antico* 1937, p. 270 and fig. 246.

<sup>9</sup> H. C. Butler, *Architecture and Other Arts*, part ii of *Publications of an American Archaeological Expedition to Syria 1899–1900*, New York, 1902, pp. 322 ff. and pp. 334 ff. Also *idem*, *Syria Div. II, Sec. A*, Leyden, 1919, pp. 365 ff. and esp. pp. 385 ff. and fig. 335. I am indebted to Miss Elizabeth Crowell of the Institute of Fine Arts for this reference.

<sup>10</sup> *Forschungen in Ephesos* iii, Vienna, 1923, p. 42, fig. 66; p. 53; p. 72, fig. 124; and p. 73, figs. 125–126. See also E. Weigand, *Wiener Jahrbuch*, loc. cit., esp. pp. 71 ff.



FIG. 4.—ARCHED GATEWAY IN THE CENTER OF THE SOUTHEAST TOWN WALL DÜR-SHURAKIN (E. BELL, *EARLY ARCHITECTURE IN WESTERN ASIA*, FIG. P. 143)

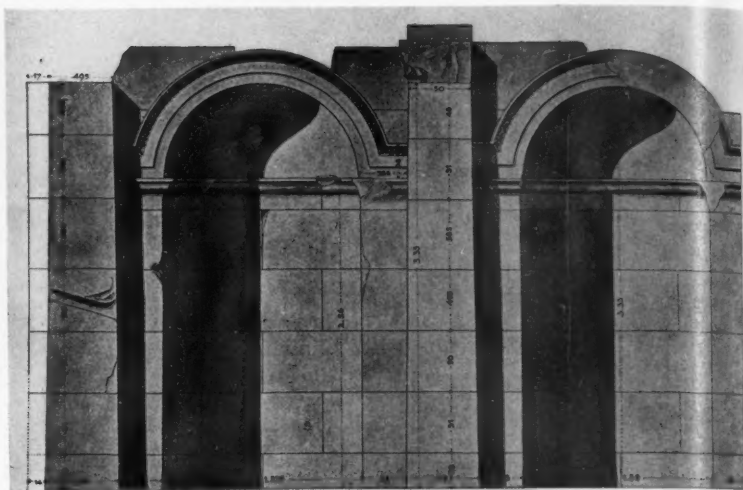


FIG. 6.—EPHESOS, SOUTH GATE OF AGORA (*Forschungen in Ephesos* iii, p. 72, FIG. 124)

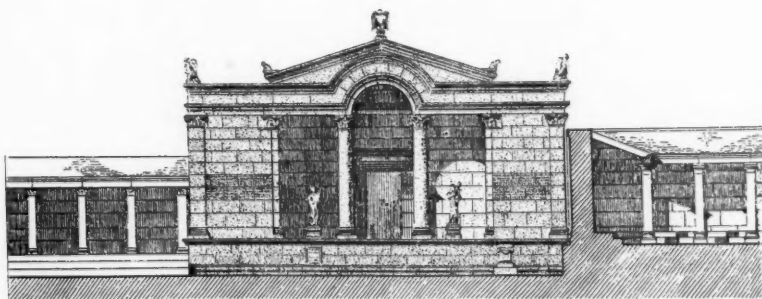


FIG. 5.—TEMPLE OF DUSHARA, SI' (FROM H. C. BUTLER, *Syria* IIA, FIG. 335)



FIG. 7.—COIN OF SALONINA (MATTINGLY, SYDENHAM, WEBB, *The Roman Imperial Coinage* 5', PL. IV, NO. 53)

and third centuries A.D., e.g. at Ba'albec,<sup>11</sup> on the temple of Zeus in Hossn Suleiman,<sup>12</sup> and on the temple at Medjdel Andjar.<sup>13</sup> It is not, however, as common a form as it might be and it is difficult to explain why it seldom, if ever, appears during the first century A.D. even in the Near East, its birthplace. The fact that niches themselves do not become an important element in Roman architecture until the second century A.D. may explain why the abbreviated, arched lintel, a crowning element of the niche, is also lacking until then. The running band frieze, which is so characteristic of the churches of Syria in the fifth and sixth centuries A.D., is nothing more than an amplification of this niche-crowning device, used for its agglutinative qualities.<sup>14</sup>

The monumental type, as observed at Si', occurs everywhere in the Near East upon buildings of the second century A.D. and later.<sup>15</sup> The same first-century *lacuna* will be observed as with the use of the abbreviated form and an explanation is even harder to find, since here there is no question of niches. Outstanding examples are the West Gate at Bosrah (fig. 1),<sup>16</sup> the propylaea at Ba'albec,<sup>17</sup> Damascus,<sup>18</sup> Atil,<sup>19</sup> and Spalato.<sup>20</sup> It is also found upon numerous temple façades of Asia Minor and also upon at least one Gallic temple, as the representations of these upon coins demonstrate (fig. 7).<sup>21</sup> There are numerous funeral monuments in Gaul<sup>22</sup> and at least one in Germany,<sup>23</sup> upon which the arcuated lintel occurs, which allows us to infer that it was also used upon more monumental sepulchral architecture. Italian examples are hard to find and, as far as can be ascertained, the device is limited to a few mosaic fountains in Pompeii and Herculaneum.<sup>24</sup> It has also been difficult to find evidence for the use of the motive in the Balkans, with the exception of Spalato, but there is a lead plaque from Razgrad in Bulgaria which shows the Thracian Rider God framed in it which allows a more monumental use to be postulated.<sup>25</sup> That the device was carried over into Byzantine architecture is shown by the pre-Justinian porticus of Haghia Sophia.<sup>26</sup>

The one important fact to be elicited from a study of the occurrences of the arcu-

<sup>11</sup> See *CAH.*, plates to vol. v, 182 A, 206 B.

<sup>12</sup> R. Krencker, *Roemische Tempel in Syrien*, pl. 33.

<sup>13</sup> *Ibid.*, pl. 76.

<sup>14</sup> E.g., at Simkhar and Bakirka, for which see H. C. Butler, *Early Churches in Syria* 1929, ill. 28 *et freq.*

<sup>15</sup> For numerous examples, see E. Weigand, *Strena Buliciana*, p. 98, note 3 and p. 99, note 2. See also *JHS.* 1930, p. 301 and pl. xii for a Palestinian sarcophagus which bears the motif.

<sup>16</sup> H. C. Butler, *Syria Div. II, Sec. A*, ill. 200.

<sup>17</sup> Schulz-Winnefeld, *Ba'albek i* (plates). Leipzig, 1921, pl. 16.

<sup>18</sup> Ahmed Djemel Pascha, *Alte Denkmäler aus Syrien*, Berlin, 1918, pl. 49.

<sup>19</sup> H. C. Butler, *Architecture and Other Arts*, p. 345, fig. 121.

<sup>20</sup> G. Niemann, *Der Palast Diokletians in Spalato*, Vienna, 1910, pls. 14 and 20.

<sup>21</sup> Waddington, Babelon and Reinach, *Recueil Général des Monnaies Grecques d'Asie Mineure*, Paris, 1904, pl. xvi, nos. 13, 20, 23; F. Imhoof-Blumer, *Kleinasiatische Muenzen i*, Vienna, 1901, pl. iv, no. 23; pl. viii, no. 4; Mattingly, Sydenham, Webb, *The Roman Imperial Coinage* v, part 1, London, 1927, pl. iv, no. 53.

<sup>22</sup> Esperandieu, *Recueil ii*, p. 173, no. 1147; p. 326, no. 1443; p. 330, no. 1453; p. 332, nos. 1547, 1548, 1560; and several others.

<sup>23</sup> *Germania Romana*<sup>2</sup>, iv, Bamberg, 1928, pl. xvii, no. 3 and text, p. 42.

<sup>24</sup> Maiuri, *Pompeii*, 1938, p. 64.

<sup>25</sup> See D. Tudor, "I Cavalieri Danubiani," in *Ephemeris Dacoromana* vii, 1937, esp. p. 227, fig. 3. I am indebted to Dr. Lehmann-Hartleben for this reference.

<sup>26</sup> *AA.* 1935, p. 310, abb. 2.

ated lintel in monumental architecture is that it is always used on the façades of gateways or buildings which have some possible religious connotation, such as temples and tombs, and never in a similar position upon purely secular buildings, such as *thermae* or *basilicae*. Spalato is the one possible exception to this rule, but even here the sense of divinity of the emperor Diocletian who inhabited this palace may have motivated the use of the scheme.

The geographical distribution is also noteworthy. The device is found commonly in the Eastern Mediterranean area. It seems not, however, to be commonly used in Egypt, Greece or in North Africa (with the exception of a unique occurrence at Leptis Magna, discussed below). It is sparingly used in Germany, Gaul and the Balkans. It does not appear in Britain or Spain, and with the exception of the few mosaic examples, it also does not occur in Italy.

A hybrid form, however, does occur in Italy at a relatively early date. This form consists of the regular architrave with an arch set over it as an independent unit, the architrave continuing below the arch or not, as the case may be. Examples of this form are afforded by the Purgatorium in the precinct of Isis at Pompeii,<sup>27</sup> and the sepulcher of Pomponius Hylas.<sup>28</sup> Similar constructions are found in Gaul, on the arch at Orange<sup>29</sup> and in Spain on a temple at Talavera la Vieja.<sup>30</sup> That this essentially Western form invades the Near East is demonstrated by the late Roman stadium gate at Miletos (fig. 8),<sup>31</sup> as well as by the North city gate of Ba'albec<sup>32</sup> and the tomb of Sextius Florentinus in Petra.<sup>33</sup>

A less sympathetic interpretation of the Near Eastern idea is shown in the Roman Sachetti relief of the late second or early third century A.D. (fig. 9). A small aedicula is crowned by an arch, which is cut right into the ornament of the entablature, thus creating a very definite accent, but one which lacks the flow of the true form.<sup>34</sup> The restriction to a religiously connected structure, however, is adhered to.

The insistence upon the use of the arcuated lintel for gateway or for façade of temple or tomb, and thus for buildings of a very definite religious nature<sup>35</sup> becomes of great interest when the silver disk of Theodosius in Madrid is recalled (fig. 10).<sup>36</sup> The architectural detail upon this disk is striking and well-known, but has been little discussed. A tetrastyle structure is shown with a triangular pediment. The entablature of the order has been raised into an arch in the center and fills the center of the tympanum—a scheme very similar to that at Si'. Beneath the arch sits Theodosius in his full regalia; at his left and right sit Arcadius and Valentinian II. The interpretation of the structure is by no means obvious if the disk is taken as an isolated object. It could be, as Delbrueck thinks, the tribune of a throne, or it

<sup>27</sup> Mau-Kelsey, *Pompeii*, New York, 1904, p. 179, fig. 82.

<sup>28</sup> Rivoira, *Roman Architecture*, p. 5, fig. 2.

<sup>29</sup> R. Peyre, *Nîmes, Arles, Orange, St. Rémy*, Paris, 1904, p. 145.

<sup>30</sup> J. R. Mélida, *Arqueología Española*, Barcelona, 1929, p. 30, fig. 148.

<sup>31</sup> E. Weigand, *Milet ii*, part 1, pl. v.

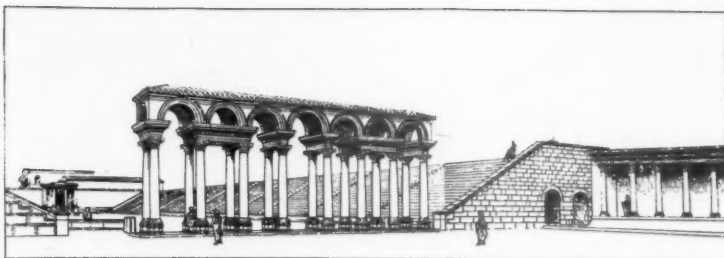
<sup>32</sup> Schulz-Winnefeld, *op. cit.*, pl. 5.

<sup>33</sup> *AA.* 1910, p. 42, abb. 16.

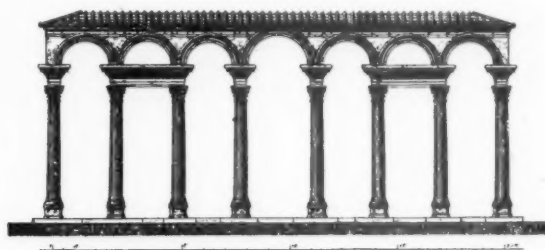
<sup>34</sup> *PBSR.* iv, pl. xxxiv and pp. 263 ff. The aedicula is described here as a "window."

<sup>35</sup> The western side opening of the calidarium of Leptis Magna has an arcuated lintel over it. See R. Bartoccini, *Le Terme di Lepcis*, Bergamo, 1929, p. 63, fig. 69. This is, I believe, a manifestation of that side-line development first seen at Ephesos and not a contradiction of the theory of restriction to religious buildings.

<sup>36</sup> See note 2 above for bibl.



1. DAS STADIUM VON MILETUS.



2. DAS SPÄTRÖMISCHE STADIUMTOR.  
GESAMTANSICHT.

FIG. 8.—MILETUS, ROMAN STADIUM GATE  
(E. WEIGAND, *Milet* ii, PART I, PL. V)



FIG. 9.—THE SACHETTI RELIEF (*Papers of the British School in Rome* iv.  
PL. XXXIV)





FIG. 10.—THE MADRID DISK (R. DELBRÜCK, *Consulardiptychen*, PL. 62)



FIG. 12.—MINIATURE FROM THE PSALTERIUM AUREUM (J. GANTHER, *Kunstgeschichte der Schweiz*, 1, FIG. 58)



FIG. 11A.—PLATE FROM NICOSIA  
(Courtesy of the Metropolitan Museum of Art)



FIG. 11B.—PLATE FROM NICOSIA  
(Courtesy of the Metropolitan Museum of Art)

could be the façade of a building similar to the Haghia Sophia portico. It might also be a transverse section through a three-aisled basilica, or, on the other hand, it could simply be a sort of symbolic enframing which proclaims the divinity or superiority of those beneath it. Objections to any of the first three suggestions above can easily be found. In the first place, no throne tribunes of this shape are known; secondly, it does not seem logical to have the emperor and his aides seated outside the palace, rather than inside (it will be remembered that the arcuated lintel is always on the *façade* of a building); thirdly, the idea of a transverse section is unthinkable in compositions of this date. The remaining suggestion that the architecture is unreal and symbolic, although based on real examples like the portico of Haghia Sophia, appears most acceptable. Such an interpretation fits in well with the allegory of Earth which is in the exergue of the disk and part of which has spread up into the tympanum of the structure, where flying genii are found which are the counterparts of those below. The whole disk thus becomes a unified symbolical representation of the divinity and beneficence of the people sitting within the structure, the shape of which has a long tradition in religious usage.

Substantiation for this suggestion of a symbolic interpretation can be found in some of the Nicosia plates (fig. 11), dated ca. 500 A.D. and now divided between the Metropolitan Museum of Art and the Nicosia Museum.<sup>37</sup> These plates contain scenes dealing with the life of David and four of them show scenes with an identical architectural background, consisting of four columns, the outer ones with twisted flutes, carrying an arcuated lintel.<sup>38</sup> No pediment is shown and the lintel is allowed to project beyond the outer columns, a point that suggests at once that here, too, an unreal structure is intended. The central intercolumniation is emphasized by being given a greater width and always within it stands or sits a superior sort of person, never a lay person. When two such personages occur in the same scene, the one of greater superiority as far as the narrative is concerned is placed beneath the arch of the lintel. Thus Saul sits below the arch when David meets him (Dalton, fig. 61, MMA); David stands below the arch when Samuel anoints him (Dalton, fig. 60, MMA) and when trying on the armor of Saul (*Eurlington Magazine* x, pl. II, no. 5, MMA); in the marriage scene Saul stands below the arch and David to one side (Dalton, fig. 358, Nicosia). The Biblical account of these various happenings places the anointing of David in a holy place in Bethlehem (*I Sam.* 16, 4-13); David before Saul and the trying-on of the armor in the camp in the valley of Elah (*I Sam.* 17, 2); the marriage of David apparently takes place in the palace of Saul in Jerusalem (*I Sam.* 18, 27). There are thus three distinct places of action, yet the architectural background does not change upon the plates. The conclusion must, therefore, be drawn that the architectural background is not meant to reproduce real structures, but is a symbol, indicating that the person beneath the arch is superior to ordinary personages in the same manner that the Byzantine emperor is superior. In other words, a certain amount of godhead is implied, which makes the

<sup>37</sup> For bibl. see note 2.

<sup>38</sup> The plate showing David trying on the armor of Saul has the type of columns reversed and the inner ones are spirally fluted, whereas the outer ones are perpendicularly fluted, but since the action of this scene takes place in the same place as that of David before Saul, where the normal order occurs, no significance can be attached to this minor change.

arcuated lintel and its religious tradition a fitting, and to antique eyes, an obvious way of indicating this divinity.

A dish from Kcapciki, dated in the first half of the sixth century A.D., has a rare scene upon it of the encounter of Venus and Anchises in the shepherd's hut.<sup>39</sup> The architectural background strives to show an arcuated lintel structure in a three-dimensional manner. The Western type is used (see p. 394 above) but the implication is certainly the same as upon the Nicosia plates, that is, the figure below the arch is more than human, and rightly so, since he is the founder of the Roman race. It is obvious that no real hut-like building is intended.


Still another silver dish, dated ca. 500 A.D., shows a similar usage of the arcuated lintel motif.<sup>40</sup> It is in the Bliss collection and comes from Riha, on the Orontes. On it appears the communion of the Apostles. Christ, in two-fold form, occupies the place of honor beneath the arch.

In silver ware there are no other examples to my knowledge where the motif of the arcuated lintel occurs. The strict suppression of the device from all scenes except those where it was desirable to indicate the superiority of certain actors within the scene and its consequent divorce from reality characterizes its use.<sup>41</sup>

A search through the published antique and early Christian ivories reveals that the arcuated lintel is relatively rarely used in architectural representations, and, with one possible exception, only when persons of more than human importance occupy the space below the arch. Persons of such a nature often occur without the use of the arcuated lintel, but the lintel never occurs without this particular kind of person. Delbrueck, in his *Consulardiptychen*, shows only three occurrences of the scheme; pl. 37, a consular diptych of ca. 435 A.D. now in Bourges; pl. 43, a consular diptych of ca. 500 A.D. now in Monza; pl. 56, a leaf of the diptych of the Lampadii, dated ca. 425 A.D., and now in Brescia. In the last of these the consul who sits beneath the arch of the lintel is dressed in the garb of a *triumphator* and is hence a semi-divine being, if only temporarily. In the second, the consul is shown by the inscriptions to be transformed on the left wing into King David and on the right wing into St. Gregory, both of them certainly superior personages. The first instance, a provincial Gallic work, is the exception already mentioned and no argument for the semi-divinity or even superiority of the gentleman seated beneath the arch can be discerned. As Delbrueck explains, however, the costume worn by the consul is unusual and at the same time the work is poor and provincial. The circumstance of the garment may indicate that the man is engaged in some sort of religious activity which would make him temporarily semi-divine, but which is as yet unknown to us. The fact, on the other hand, that the workmanship is generally poor may explain the apparent *faux pas* in the choice of the motif of the lintel.

<sup>39</sup> L. Matzulewitsch, "Byzantinische Antike," in *Archaeologische Mittheilungen aus Russischen Sammlungen* II, Berlin and Leipzig, 1929, pl. 3.

<sup>40</sup> Volbach-Duthuit, *Art Byzantin*, Paris, n.d., pl. 56.

<sup>41</sup> The Achilles and Briseis plate in the Bibliothèque Nationale, Paris (Odobesco *op. cit.*, fig. 46), which has an architectural background consisting of a tetrastyle structure with a central triangular pediment and two flanking arches, thus:  may be, as Dalton suggests, a prototype of these later Byzantine pieces. It is dated in the Antonine Period. However, the question of the arcuated lintel does not concern it and it is doubtful if it has anything whatever in common with the pieces discussed above.

Dalton, in *Ivory Carvings in the British Museum*, illustrates in nos. 11, 12 and 14 three carvings of Near Eastern origin, the first of which is the famous St. Michael of the fourth century A.D., the second a pyxis with scenes from the life of St. Menas of the sixth-seventh centuries A.D., and the third an adoration scene of the sixth century A.D. In all of these the superior person about whom the scene centers is placed beneath an arcuated lintel construction, and in the case of St. Menas, at least, is thus made very clear to the observer. It cannot be seriously contended that the architectural framing of any of these persons is intended to duplicate some actual building. On the other hand, the symbolical use of the arcuated lintel cannot be seriously doubted.

In the same milieu as the British Museum St. Michael are the holy men who appear beneath arcuated lintels on the ivory chair of Maximianus in Ravenna, a product of some Near Eastern center.<sup>42</sup> Other examples of the combination of arcuated lintel and superior personages can be found, but since none of them violates the principles herein established, they will not be discussed here.<sup>43</sup>

Briefly summing up, the arcuated lintel appears to have been originated in Syria in the early ninth century B.C., as a mode of decoration for city gateways. It was regularly used in such a capacity until the sixth century B.C., when it seems to have dropped out of use. It reappears in the Nabataean building at Dushara in the first century B.C. and is never lost thereafter. On monumental buildings it is confined to those which have some religious significance, such as gateways and temples and always to the façades of these. In the second century A.D., it appears on objects of the minor arts and has a long period of use. Structures with the arcuated lintel are made use of as framing devices, to indicate the semi-divinity or superiority of persons placed beneath the arch. The Eastern portions of the Empire appear to have been more partial to the use of the motif even in late antiquity than the Western. That the motif persisted even into the mediaeval period is shown, e.g. by the *St. Gall Psalterium Aureum* of the ninth century A.D. (fig. 12).<sup>44</sup>

Since writing this article, the famous "sword of Tiberius"<sup>45</sup> has been drawn to my attention as showing a temple with an arcuated lintel upon it. This is, as far as I can see, an isolated first-century A.D. example of the use of the motif in the minor arts. However, the statement made in the final paragraph of my paper must be amended to read, "In the second century A.D. it commonly appears etc., etc."

DONALD F. BROWN

DUMBARTON OAKS

NOTE. In addition to the Weigand articles, cited in note 3, less satisfactory discussions of the arcuated lintel can be found in A. K. Porter, *Mediaeval Architecture* i, New Haven, 1912, p. 51; S. B. Murray, Jr., *Hellenistic Architecture in Syria*, Princeton, 1917, pp. 12-14; T. Fyfe, *Hellenistic Architecture*, Cambridge, 1936, p. 91; M. Aviyonah, *JHS.*, 1930, pp. 302-303.

<sup>42</sup> Kuenstle, *Ikonographie der christlichen Kunst* i, Freiburg i.B., p. 46, fig. 11.

<sup>43</sup> Graeven, *Elfenbeinwerke*, 1898, nos. 2 and 11; 1900, no. 45. C. R. Morey, *Gli Oggetti di Avorio e di Osso*, Vatican, 1936, frontispiece, pl. vi, A58 and pl. x, A63. *Propyläen Kunstgeschichte* vi, 1929, pl. vii, p. 222, p. 318.

<sup>44</sup> J. Gantner, *Kunstgeschichte der Schweiz* i, Frauenfeld/Leipzig, 1936, p. 90, fig. 58.

<sup>45</sup> H. B. Walters, *Catalogue of the Bronzes, Greek, Roman and Etruscan Bronzes in the British Museum*, London, 1899, p. 157, no. 867. A sketch is in S. Reinach, *Repertoire de Reliefs Grecs et Romains* ii, Paris 1912, p. 494, nos. 3, 4.



## POSSIBILITIES OF PREHISTORIC METALLURGY IN THE EAST BALKAN PENINSULA

THE Transylvanian Alps terminate with the water gap of the Danube's Iron Gate; on the south bank of the Danube the continuation is known as the Balkan range. A long eastward arm extends into north Bulgaria, and an oblique spur to the south-east juts between the Marica river and the Thracian coast, forming the rugged Rhodope chain. In all this connected mountain mass are native ores, now being exploited, and their presence indicates the possibility that they may have been utilized in antiquity.

The Krajina region of Yugoslavia, defined by the Deli Jovan, Veliki Greben and Miroč ranges in the west and by the Danube in the east, is "extensively impregnated with ore veins, especially of gold and silver."<sup>1</sup> It was exploited by the Romans, whose attention may have been attracted by Iron-Age natives, for La Tène sherds have been found at some of the ancient copper workings on the Pek river.<sup>1</sup> Mining was done along the courses of the Pek, Mlava, Porečka and Krivovirski Timok (or Černa) rivers. The riverine deposits may have been worked in prehistoric times for gold. At "Majdan Pek," the Romans extensively worked copper and gold;<sup>2</sup> on the Vitovnica, a tributary of the Mlava, argentiferous lead;<sup>3</sup> and at Ručania, gold and silver. North of the Černa river at Bor are the largest gold and copper mines in Europe, also utilized by the Romans. Free gold and auriferous sulphides were found in vein outcroppings north of Bor on Deli Jovan range.<sup>4</sup> Gold and silver are still obtainable at Zlot, and were mined by the Romans, who also worked gold placers in the Timok, Bela Reka and other streams north and south of Zaječar.<sup>5</sup>

In the Kosmaj district, some 35 km. south of Belgrade, between Babe, Stoinik and Guberevci, are old workings for argentiferous cerussite, etc., including galena and cinnabar. From here, and from "Avala" at Šuplja Stena, where cinnabar was mined in antiquity, this ore may have been taken for use at the great neolithic site of "Vinča" on the Danube.<sup>6</sup>

At "Rudnik" ("mine" in Serbian), some 75 km. south of Belgrade, occurs argentiferous galena, and some chalcopryrite, malachite and blende, worked in Roman times.<sup>7</sup> At Kopaonik and Priština, two-thirds of the way from Belgrade to the Greek frontier, are important (at present and in antiquity) silver deposits.<sup>7</sup>

On both sides of Osogov Planina (the mountain between Kratovo in Yugoslavia and Kjustendil in Bulgaria) are found small silver deposits, and some gold and copper.<sup>8</sup> Silver deposits in this region at Kratovo, Ruplje, Musuli, Dovrevo, Openica, Srebrenica and Vulči Korabia in Yugoslavia were anciently worked.<sup>8</sup> In Bulgaria they occur at "Srebreno Kolo" and "Stradjalovo."<sup>9</sup> Gold is found near Bozica on the Bulgarian-Yugoslavian frontier.<sup>10</sup>

In the Struma valley, gold placer workings have been located in its upper courses

<sup>1</sup> Davies, 1937/8, p. 408.

<sup>2</sup> Davies, 1935, p. 217.

<sup>4</sup> *Ibid.*, p. 221.

<sup>3</sup> *Ibid.*, and Davies, 1935, p. 221.

<sup>5</sup> Davies, 1937/8, p. 408.

<sup>6</sup> Davies, 1935, pp. 214-15; Vassits, 1910, p. 31; Vasić, 1932, pp. 4-10.

<sup>7</sup> Davies, 1935, p. 222.

<sup>8</sup> *Ibid.*, p. 228.

<sup>9</sup> Radoslavoff, 1919, p. 21.

<sup>10</sup> Davies, 1935, p. 231.



at Raždavica, and at its headwaters on the south slopes of Vitoša mountain.<sup>11</sup> Ancient Pautalia (modern Kjustendil) was extolled in the third century for its gold washing and silver mining, gold coming "chiefly from the sands of the Struma."<sup>12</sup> Near Radomir is the "Radomir Gold Massif,"<sup>13</sup> and from here to Kjustendil gold is even now procurable from alluvial deposits.<sup>14</sup> It is also found at Trn, Čiprovo and Zlatno Runo,<sup>15</sup> Nadežda, and Golemo Selo near Dupnica.<sup>16</sup> Old mines south of Trn yielded gold, silver and lead, the lead being discarded.<sup>17</sup> Milkovica, southeast of Trn, was worked in Roman times, and at the Zlata mine (now operated as an Anglo-American concern) over 400 fourth-century Roman coins were discovered.<sup>18</sup> Also near Trn are many pittings, especially at the villages of Erul, Glogovica, Businci, and Turjakovci, which mark former workings for copper ores.

In the Sofia basin old copper workings have been ascertained at "Ovci Grb," "Vita Glava" and "Gerana," northeast of the capital.<sup>19</sup> Lead comes from Osenovlak near Sofia, and copper from "Brese." The Turks obtained lead, zinc and copper near Čelopečene,<sup>20</sup> and copper is still available at Leskov Dol and Radina villages beyond Sofia.<sup>21</sup>

There are large modern copper mines at the north end of the Isker gorge at Eliseina, and gold today is being washed from a rivulet tributary of the Isker below Bov in the defile. The Stara Planina (Balkan mountains proper) "contains many small deposits of copper and argentiferous lead ore, mostly worked in ancient times. They occur between the Timok valley and Etropole, but do not seem to extend east of the latter."<sup>22</sup> South of Belogradčik important sources of copper ore occur at Gorni Lom, Čeproveci and Železna. A vein of argentiferous galena, 6 km. long, located at Železna, is said to have been mined at least as early as Saxon times.<sup>23</sup> There are also copper workings at Laca near Leskovac.

At Plakalnica, south of Vraca on Vračanska mountain, there is a chalcopryritic lode, which, according to Davies,<sup>24</sup> was the scene of intensive Roman exploitation, probably of oxidized surface ores. It is being worked now.<sup>25</sup> So is Sgori Grad,<sup>26</sup> where fifth-sixth century Roman coins have been found. Large ancient workings for argentiferous lead and gold have been identified at Etropole,<sup>27</sup> which may be Roman; they may even antedate that time, for Thracian fibulae were collected at Laja.<sup>28</sup>

Eastwards, Altan Tepe in the northern Dobrudža is known for gold and copper workings.<sup>29</sup>

In south Bulgaria, "one of the principal centres must have been the Rhodope and the upper Marica, where lived the Bassi, whose name was to become equivalent to 'gold-washer' and to lose all topographical significance."<sup>30</sup> At Čamšadinovo, northeast of Ihtiman, have been discovered "old" shafts used in silver mining.<sup>31</sup> Copper and gold are now to be recovered along the Luda Yana river near Pana-

<sup>11</sup> Davies, 1937/8, p. 411.

<sup>14</sup> Radoslavoff, 1921, p. 7.

<sup>17</sup> Davies, 1937/8, p. 411.

<sup>20</sup> Radoslavoff, 1919, p. 22.

<sup>22</sup> Davies, 1937/8, p. 413.

<sup>25</sup> Radoslavoff, 1931, p. 42.

<sup>28</sup> *Ibid.*, quoting V. Mikov of Narodni Muzei, Sofia.

<sup>30</sup> *Ibid.*, p. 410.

<sup>12</sup> *Ibid.*, p. 410.

<sup>15</sup> Radoslavoff, 1931, p. 46.

<sup>18</sup> Radoslavoff, 1919, p. 19.

<sup>21</sup> *Ibid.*, p. 40, and Radoslavoff, 1931, p. 44.

<sup>23</sup> *Ibid.*, p. 414.

<sup>26</sup> Radoslavoff, 1919, p. 16.

<sup>13</sup> Radoslavoff, 1931, p. 46.

<sup>16</sup> Davies, 1935, p. 231.

<sup>19</sup> Davies, 1937/8, p. 413.

<sup>24</sup> *Ibid.*

<sup>27</sup> *Ibid.*

<sup>29</sup> Davies, 1937/8, p. 414.

<sup>31</sup> *Ibid.*, p. 418.

<sup>31</sup> *Ibid.*, p. 415.

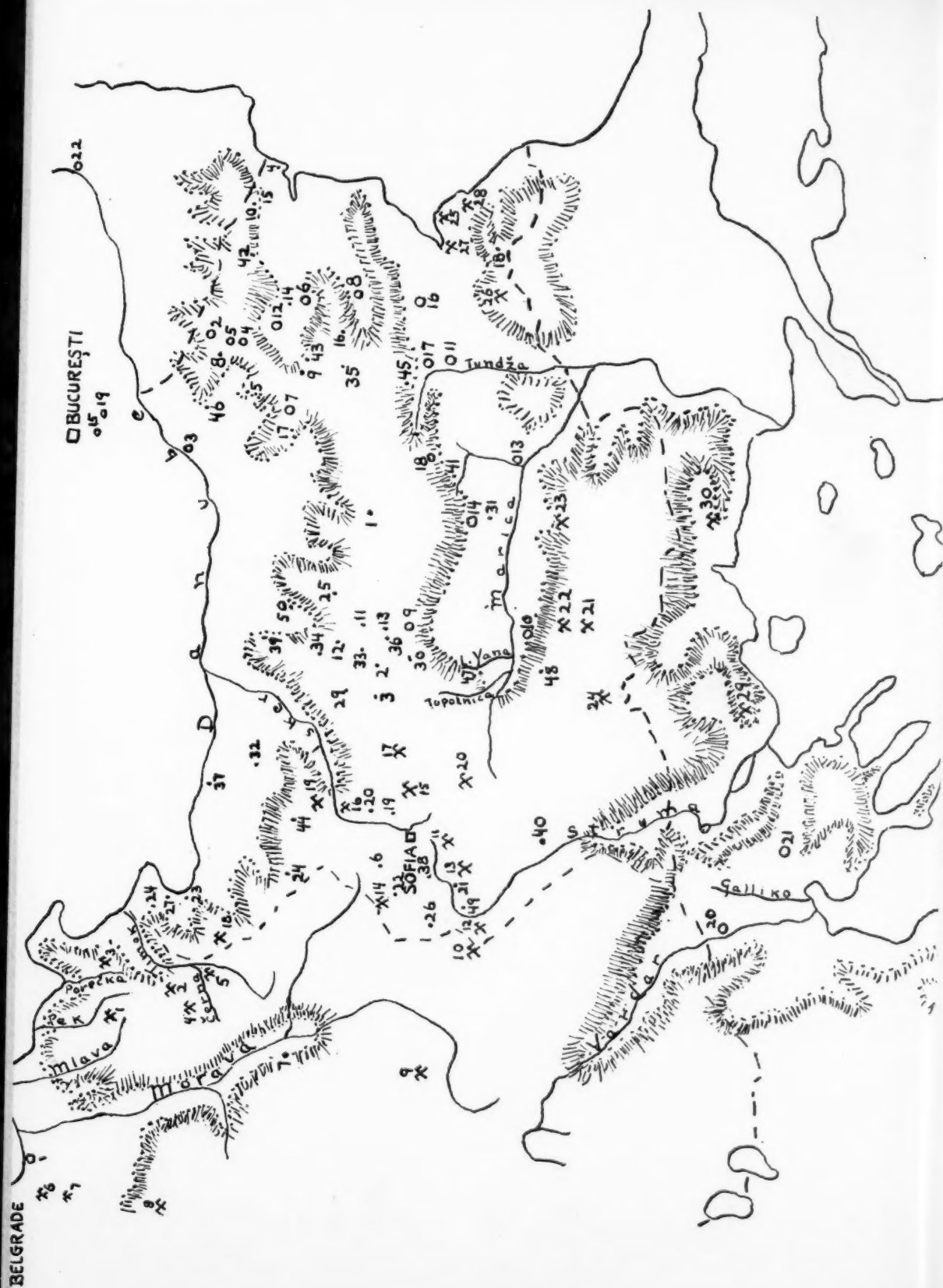


FIG. 1.—MAP OF PREHISTORIC METALLURGICAL SITES  
 Boundaries of Highlands and Mountains: |||||

gurište.<sup>32</sup> Gold occurs along the Topolnica near Pazardžik.<sup>33</sup> At Sarasin, 10 km. south of Hvoina on the Čepelarska river is a rich mine of argentiferous galena and some gold. Coins of Philip II of Macedon have been found there.<sup>34</sup> Copper and lead are now obtained from mines at Pavelska village near Asenovgrad, south of Plovdiv.<sup>35</sup> Gold is panned northwest of Haskovo now, and was procured there in Roman times.<sup>32</sup> Ancient gold workings occur at Dospat in the southern Rhodope.<sup>36</sup>

## MINES AND MINERAL RESOURCES

- |                |                   |                      |
|----------------|-------------------|----------------------|
| 1. Majdan Pek  | 11. Vitoša        | 21. Sarasin (Hvoina) |
| 2. Bor         | 12. Kjustendil    | 22. Pavelska         |
| 3. Deli Yovan  | 13. Radomir       | 23. Haskovo          |
| 4. Zlot        | 14. Trn           | 24. Dospat           |
| 5. Zaječar     | 15. Čelopečene    | 25. Bakarluk         |
| 6. Avala       | 16. Eliseina      | 26. Strandža Mt.     |
| 7. Kosmaj      | 17. Etropole      | 27. Karabajir        |
| 8. Rudnik      | 18. Belogradčik   | 28. Rosenbajir       |
| 9. Priština    | 19. Vračanska Mt. | 29. Pangaeum         |
| 10. Osogov Mt. | 20. Ihtiman       | 30. Yardimli         |

## MOUNDS

- |                |                     |                  |
|----------------|---------------------|------------------|
| 1. Vinča       | 8. Zavet            | 16. Karnobat     |
| 2. Yanka       | 9. Gaborevo         | 17. Azap Köy     |
| 3. Rusé        | 10. Mečkur          | 18. Karanovo     |
| 4. Kara Arnaut | 11. Rašev           | 19. Glina        |
| 5. Hissarlik   | 12. Kodža Dermen    | 20. Vardarophtsa |
| 6. Denev       | 13. Deve Bargan     | 21. Saratse      |
| 7. Sultan      | 14. Sveti Kyrillovo | 22. Černa Voda   |
|                | 15. Vidra           |                  |

## CAVES AND STRAY FINDS

- |                       |                    |                          |
|-----------------------|--------------------|--------------------------|
| 1. Malkata Peštera    | 18. Urum Köy       | 35. Verbica              |
| 2. Toplja             | 19. Kremikovci     | 36. Gradišteto (Gabrovo) |
| 3. Morovica           | 20. Bukovec        | 37. Orehovo              |
| 4. St. Constantine    | 21. Radomir        | 38. Golo Berdo (Pernik)  |
| 5. Drenovec           | 22. Rebro          | 39. Kailuka (Pleven)     |
| 6. Slivnica           | 23. Arčar          | 40. Smočevo              |
| 7. Pločnik            | 24. Berkovica      | 41. Stara Zagora         |
| 8. Gjuzdž Alan        | 25. Gorski Trumbeš | 42. Kasimlar             |
| 9. Bani Yuk           | 26. Leva Reka      | 43. Preslav              |
| 10. Vulči Dol         | 27. Novo Selci     | 44. Roman                |
| 11. Gorsko Kalugerovo | 28. Tijanovci      | 45. Mihailovo            |
| 12. Dolčec            | 29. Ugurčin        | 46. Semerdžievo          |
| 13. Žulteš            | 30. Karlovo        | 47. Kalaglare            |
| 14. Madara            | 31. Paimukči       | 48. Peruštica            |
| 15. Pašait            | 32. Bela Slatina   | 49. Tavalichevo          |
| 16. Riš               | 33. Vasileovo      | 50. Vulči Trn            |
| 17. Seid              | 34. Vladinja       |                          |

"The southeastern corner of Bulgaria is much mineralized."<sup>37</sup> Just west of the seacoast town of Sosopol (ancient Apollonia) rises the great hill of Bakarluk (Bakar,

<sup>32</sup> Oral information, Zlata Mines, Ltd.

<sup>35</sup> Radoslavoff, 1919, p. 53.

<sup>33</sup> Davies, 1932, p. 160.

<sup>36</sup> Davies, 1932, p. 160.

<sup>34</sup> Davies, 1937/8, p. 415.

<sup>37</sup> Davies, 1936, p. 92.

bakir = copper in Turkish), where there are modern mines; four mining concessions were operating there in 1931.<sup>38</sup> This region was exploited in Roman and Saxon times.<sup>39</sup>

Davies has explored ancient workings further south in the Strandža Planina,<sup>40</sup> and has drawn attention to two important prehistoric copper mines south of Burgas.<sup>41</sup> The one at Karabajir was worked in three veins, one vein having been mined for a kilometer's distance by vertical shafts to a connecting tunnel which followed the vein. The ore was probably removed by fire-setting. Iron-Age sherds were found on the tips where the ore was pounded. That the technique of mining was primitive is further indicated by the absence of drainage holes to the mine. A sample of malachite found here assayed 90% copper, 8.4% iron, 0.24% lead, and other unobservable elements.

The second mine, Rosenbajir, had the same type of workings and yielded chalcopyrite, hematite and specular iron ore. Davies believes that the copper and iron were sought at different periods, the iron in Roman times, the copper in prehistoric, and he concludes: "The importance of these copper mines cannot be exaggerated. Their extent and date equate them with those of the Alps."<sup>42</sup>

In Thrace and Macedonia, Casson<sup>43</sup> has collected certain evidence for mineral resources, and his work has been corrected and greatly supplemented by Davies.<sup>44</sup> Pangaeum mountain and vicinity, the Vardar (Axios) and Galliko river valleys were the most important gold-producing regions. Before 1914 there was a copper mine at Yardimli.<sup>45</sup> Slag found at Porna is indicative of some past search for gold or copper.<sup>46</sup> Davies mentions old tin mines on Pangaeum, but these he could not identify,<sup>46</sup> and he remains "sceptical about them."<sup>47</sup>

Such an abundance of mineral wealth as has been cited may possibly be misleading, for not all the deposits are workable by primitive methods.<sup>48</sup> Yet the present sub-surface wealth is indicative of what greater quantities there must have been in the prehistoric past. That metallurgy was probably practised in "Neolithic" Europe must be recognized.<sup>49</sup> In Hungary the hitherto stray copper implements have been definitely allocated in (Childe's) Period III by the finding of a copper battle-axe at Kiskörös<sup>50</sup> and a copper axe-adze at Jaszladany.<sup>51</sup> Indeed, for Hungary, Hillebrand believes that the metal industry was indigenous.<sup>52</sup> And in the Balkans copper implements, in context and as random finds, are plentiful in pre-(Danubian) Bronze Age horizons.

In Bulgaria a copper pin shaft was excavated with coarse finger-smearware of Gumelnița type at Malkata Podliša,<sup>53</sup> three copper quadrangular pin shafts occurred in the mixed levels at the entrance to Toplja cave,<sup>54</sup> and a similar shaft was discovered at Morovica cave.<sup>55</sup>

Excavation at the "Yanka Mound," Balbunar, produced in the upper (Gumelnița) levels five pin shafts with rectangular cross-section, and two copper rings,

<sup>38</sup> Radoslavoff, 1931, p. 46.

<sup>39</sup> Radoslavoff, 1921, p. 8.

<sup>40</sup> Davies, 1937/8, p. 418.

<sup>41</sup> Davies, 1936, pp. 92-3.

<sup>42</sup> *Ibid.*, p. 93.

<sup>43</sup> Casson, 1926, pp. 57-79.

<sup>44</sup> Davies, 1932, pp. 145-156, and 1939, pp. 253-55.

<sup>45</sup> Davies, 1932, p. 154.

<sup>46</sup> *Ibid.*, p. 157.

<sup>47</sup> Davies, 1939, p. 254.

<sup>48</sup> *Ibid.*, p. 253.

<sup>49</sup> Childe, 1939, p. 110.

<sup>50</sup> Csalogovitz, 1931, pp. 102-115.

<sup>51</sup> Tompa, 1937, p. 58.

<sup>52</sup> Hillebrand, 1929, pp. 49-51.

<sup>53</sup> Popov, 1913, pp. 449-60.

<sup>54</sup> Bončev, 1900, pp. 80-98.

<sup>55</sup> Popov, 1912/13, fig. 215.

one a flat "wire" band, the other a curved pin shaft.<sup>56</sup> Kostov's sounding at the Rusé mound yielded, in a Gumelnita context, five similar pin shafts, a punch set in a bone handle, two spiral-headed pins, a pin with a simple overlooped end, a flat fragment ("tablet") and a "buckle" made of thin copper wires.<sup>57</sup> Mikov has published<sup>58</sup> three more pin shafts associated with Gumelnita pottery in the "Voina" mound at Kara Arnaut; two more come from "Hissarlik" mound near Razgrad,<sup>59</sup> and yet another one from "Denev."<sup>60</sup>

The Varna Museum has a spiral-headed pin from the St. Constantine Monastery, northeast of the city. Such pins were found at "Sultan" in a Gumelnita context (as at Rusé),<sup>61</sup> in the recent excavations of V. Mikov at "Zavet,"<sup>62</sup> and at Gaborevo, here with a spatula-headed pin and four simple, loop-headed pins.<sup>63</sup>

A spatula-headed pin is also known from Tell Mečkur,<sup>64</sup> where also were found six pin shafts.<sup>65</sup> Père Jérôme discovered a small (5 cm. long) copper chisel<sup>66</sup> and a twisted ring (or spiral-headed pin?) fragment. Later, three pin shafts were found there.<sup>67</sup> Two pins, with quadrangular shafts and overlooped heads, were excavated at Kodža Dermen,<sup>68</sup> two at Deve Bargan,<sup>69</sup> and one at Sveti Kyrillovo,<sup>70</sup> where in a different part of the mound, was also found a short copper-tanged dagger, flat, without a central rib.<sup>70</sup>

In Rumania, a copper pin with a rolled head was recovered in the Gumelnita level at Vidra (Vidra II-D);<sup>71</sup> spiral-headed pins in levels II-B and II-C,<sup>72</sup> and bone copies of these also in II-B and C.<sup>73</sup> From level II-C comes a copper perforated axe with a short adze-like butt,<sup>74</sup> which, says Rosetti in the Rumanian text,<sup>75</sup> was made by the "cire perdue" technique. This observation is not repeated in the French text, where, however, Rosetti states, "on y connaissait la fonte des métaux (du cuivre)." <sup>76</sup>

Rosetti reports a similar axe-adze from Sibiu in Transylvania, and one from the Varna Museum.<sup>77</sup> These are of the same type as that found at Gaborevo,<sup>78</sup> with a copper perforated adze and the above-mentioned pins. One copper axe-adze of similar shape was found at Drenovec,<sup>79</sup> and three at Slivnica, half-way from Sofia to the Yugoslav frontier, on the "Great Diagonal Road" from the middle Danube valley to the Dardanelles. An analysis showed these to be of almost pure copper with a trace of iron.<sup>80</sup> Further west along this route, at Pločnik, Grbić discovered a hoard of twelve copper chisels and an identical perforated axe with a short butt.<sup>81</sup>

From Gjuzeldže Alan comes a perforated axe with a longer, rectangular, straight (not oblique) butt.<sup>82</sup> A copper chisel is reported from the Bani-Yuk mound, Ivanovo,<sup>83</sup> and one from the Hissarlik mound, with a squared butt and a tapered bit, is in the Razgrad Museum collection. A similar celt, square-edged, square-butted,

<sup>56</sup> Mikov, 1926/27, p. 276.

<sup>57</sup> Kostov, 1922/25, p. 62.

<sup>58</sup> Mikov, 1923/24, p. 223.

<sup>59</sup> Mikov, 1933, p. 64.

<sup>60</sup> Popov, 1914, p. 213.

<sup>61</sup> Mikov, 1921/25, fig. 49.

<sup>62</sup> Kind information of V. Mikov.

<sup>63</sup> Mikov, 1926/31, fig. 31.

<sup>64</sup> Seure and Degrand, 1906, p. 400.

<sup>65</sup> *Ibid.*, pp. 394, 97, 400.

<sup>66</sup> Jérôme, 1901, p. 330.

<sup>67</sup> Seure and Degrand, 1906, pp. 378-80.

<sup>68</sup> Popov, 1916/18, fig. 91.

<sup>69</sup> Popov, 1922/25, p. 109.

<sup>70</sup> Kazarow, 1914, p. 88.

<sup>71</sup> Rosetti, 1934, p. 49.

<sup>72</sup> *Ibid.*, p. 45.

<sup>73</sup> *Ibid.*

<sup>74</sup> *Ibid.*, fig. 42.

<sup>75</sup> *Ibid.*, p. 29.

<sup>76</sup> *Ibid.*, p. 45.

<sup>77</sup> *Ibid.*, p. 46.

<sup>78</sup> Mikov, 1926/31, p. 8 and fig. 29.

<sup>79</sup> Yavašov, 1929, fig. 5.

<sup>80</sup> Popov, 1921, pp. 20-21.

<sup>81</sup> Grbić, 1929, p. 9 and figs. 98-102.

<sup>82</sup> Škorpić, 1898, p. 104, fig. 42.

<sup>83</sup> Mikov, 1933, p. 59.



tapering gently to a slightly flared bit (like no. 102 from Pločnik) was found at Kodža Dermen.<sup>84</sup> Analyzed, it was revealed to be 99% copper, 0.35% zinc, 0.23% iron; no traces of other elements were present. One celt was also found at the Deve Bargan mound in south Bulgaria.<sup>85</sup> A flat celt with a flaring bit comes from the Karnobat mound,<sup>86</sup> and in the Karnobat Gymnasium there are two short chisels, presumably both of copper.

A series of stray finds of copper celts is known from various parts of Bulgaria. The chief localities are: Vulči Dol,<sup>87</sup> Gorsko Kalugerovo,<sup>88</sup> Dolčec,<sup>88</sup> Žulteš,<sup>88</sup> Madara,<sup>89</sup> Pašait,<sup>89</sup> Riš,<sup>89</sup> Seid,<sup>89</sup> and Urumköy.<sup>90</sup> The celts from Dolčec and Pašait are made from a simple flat rod, rectangular in section, tapered at one end.<sup>91</sup> The celt from Seid is flat, with double wings at the bit end, and with a thin butt.<sup>92</sup>

Another type of metal implement known from stray occurrences in Bulgaria is the developed axe-adze of the so-called "Hungarian" (not Aegean) form, with a short shaft-hole lip-ring. It has been found at Kremikovci,<sup>93</sup> Bukovec (99% copper, 0.28% iron, no tin, lead, zinc discoverable),<sup>94</sup> Radomir,<sup>95</sup> Rebro near Trn,<sup>96</sup> Arčar near Vidin,<sup>97</sup> Berkovica,<sup>98</sup> Gorski Trumbeš,<sup>99</sup> Leva Reka,<sup>100</sup> Novoselci;<sup>100</sup> two come from Tijanovci,<sup>100</sup> and one from Ugurčin.<sup>100</sup> In southern Bulgaria they have been found at Karlovo,<sup>101</sup> Pamukči,<sup>101</sup> and Sveti Kyrillovo (not from the well-known settlement mound, however).<sup>101</sup>

The significant distribution of this metal type in the mountains (only those from Arčar, Pamukči and Sveti Kyrillovo are off the heights) gives an indication of what their owners were doing in Bulgaria: probably searching for metals.

A third type of a frequently recurring stray copper implement in Bulgaria is the so-called "Hungarian" shaft-hole axe. It has been found at "Suhija Geren" (Bela Slatina),<sup>102</sup> Vasileovo,<sup>102</sup> Vladinja,<sup>102</sup> Verbica,<sup>102</sup> Gradišteto,<sup>102</sup> Orehoovo,<sup>103</sup> Golo Berdo,<sup>102</sup> Kailuka,<sup>103</sup> Smočevo,<sup>104</sup> and Stara Zagora.<sup>105</sup>

This type likewise is distributed predominantly in the highlands. It is attributable to the Bronze Age in Bulgaria, for one specimen occurred with typical Early Bronze Age pottery at the site of Azapköy.<sup>106</sup> This Early Bronze Age culture has been found stratigraphically overlying the Gumelnița culture at Karanovo.<sup>107</sup>

Metallurgy definitely was practised during the end phases of the Neolithic period, or at the beginning of the Bronze Age in the Balkans, attested by the mould for a flat axe at Glina<sup>108</sup> in a Glina III-Schneckenberg context. Gold slags have been found in "Early Bronze Age" strata at Vardarophtsa and at Saratse, in which horizons some of the metal specimens are pure copper.<sup>109</sup> Further south in Greece the Early Helladic tin mines at Cirrha Maghoula, and the copper slag found at the Volo Kastro mound in Early Helladic levels, are further proof that the region south of Bulgaria was actively practising metallurgy<sup>109a</sup> at a period equivalent to the late

<sup>84</sup> Popov, 1916/18, p. 98.    <sup>85</sup> Popov, 1922/25, p. 109.    <sup>86</sup> Kazarow, 1923, p. 37 and fig. 1/10.

<sup>87</sup> Mikov, 1933, p. 89.    <sup>88</sup> *Ibid.*, p. 90.    <sup>89</sup> *Ibid.*, p. 91.    <sup>90</sup> *Ibid.*, p. 92.    <sup>91</sup> Mikov, 1929, p. 61.

<sup>92</sup> Djakovič, 1923, p. 293.    <sup>93</sup> Popov, 1921, p. 19.    <sup>94</sup> *Ibid.*, p. 20.    <sup>95</sup> Mikov, 1933, p. 91.

<sup>96</sup> *Ibid.*    <sup>97</sup> *Ibid.*, p. 88.    <sup>98</sup> *Ibid.*    <sup>99</sup> *Ibid.*, p. 90.    <sup>100</sup> Mikov, 1929, p. 62.

<sup>101</sup> Mikov, 1933, p. 92.    <sup>102</sup> *Ibid.*, p. 89.    <sup>103</sup> *Ibid.*, p. 91.    <sup>104</sup> Škorpil, 1898, p. 104, fig. 43.

<sup>105</sup> Mikov, 1933, p. 92.    <sup>106</sup> Mikov, 1928/29, pp. 171-83.

<sup>107</sup> Mikov, 1937, pp. 157-173, and 1939, pp. 345-49.    <sup>108</sup> Nestor, 1928, p. 130.

<sup>109</sup> Davies, 1939, p. 253.    <sup>109a</sup> Davies, 1929, pp. 89-99.

Neolithic (Chalcolithic) period on the Danube. In Bulgaria proper, the first moulds known are those for socketed celts, as at Kasimlar,<sup>110</sup> Preslav,<sup>111</sup> Roman,<sup>112</sup> and Mihailovo.<sup>113</sup> An ingot with three socketed celts and a double-bitted axe (ingot?) are known from Semerdžievo near Rusé.<sup>114</sup>

The richness of Bulgarian ore deposits and the frequency of metal implements precisely in the ore-bearing regions would indicate that prehistoric man mined and smelted copper in the east Balkans. When that metallurgy began is uncertain; by Late Bronze Age times assuredly, by Late Neolithic times very probably. Who was responsible for this revolutionary concept is also indicated by the culture objects themselves. Marble figurines,<sup>115</sup> askoi (Mečkur,<sup>116</sup> Vidra,<sup>117</sup> Černa Voda<sup>118</sup>) and spiral-headed pins are sure signs of Aegean Early Bronze Age influence in this province. Later relations are obvious from the Mycenaean sword, long ago published by Casson,<sup>119</sup> from Kalaglare. There is also one from Peruštica,<sup>120</sup> one from Tavalicevo in the Struma valley, and one from near Bucarest.<sup>121</sup> Filow believes there is strong Mycenaean influence in the great gold treasure from Vulči Trn.<sup>122</sup>

Western Anatolian influences are strongly felt in southern Bulgaria. The spiral-headed pin occurs in Troy II,<sup>123</sup> at Ahlatlibel,<sup>124</sup> and eastwards through north Iran as far as Chanhü Daro in the Indus valley.<sup>125</sup> The winged-bit celt (as at Seid) occurs in Troy II,<sup>126</sup> as does the simple over-looped pin<sup>126</sup> and the tanged dagger from Sveti Kyrillovo.<sup>126</sup> The last two recur at Ahlatlibel.<sup>127</sup> The Anatolian pot-forms from the upper level at Sveti Kyrillovo,<sup>128</sup> and the recently discovered two-handled beaker from Svilengrad,<sup>129</sup> further indicate the actual settlements of west Asian people in lower, southeastern Bulgaria. These would be a part of that west Anatolian invasion which, according to Heurtley,<sup>130</sup> was responsible for the Early Bronze Age in Macedonia.

It is often maintained that the Danubian Early Bronze Age derived its chief impetus from Anatolia. "The Anatolian metallurgists whom we shall have to postulate in period IV may have been working in the Baden province."<sup>131</sup> "The first bronzesmiths producing for a Central European market had been trained in Asiatic schools . . . and introduced Oriental fashions in personal adornment."<sup>132</sup> It is exactly in this corner of Europe, eastern Yugoslavia,<sup>133</sup> all of Bulgaria, and Macedonia,<sup>134</sup> however, that typical Danubian Early Bronze Age adornments are lack-

<sup>110</sup> Mikov, 1933, p. 100.

<sup>111</sup> *Ibid.*, p. 103.

<sup>112</sup> *Ibid.*, p. 104.

<sup>113</sup> *Ibid.*, p. 107.

<sup>114</sup> Popov, 1932/3, pp. 355-57.

<sup>115</sup> Popov, 1925, p. 91 ff.

<sup>116</sup> Seure and Degrand, 1906, p. 397.

<sup>117</sup> Rosetti, 1934, pl. III/11.

<sup>118</sup> Nestor, 1937, p. 12.

<sup>119</sup> Casson, 1923, p. 170 ff.

<sup>120</sup> Djakovic, 1927, p. 126.

<sup>121</sup> Dumitrescu, 1938, p. 169-73.

<sup>122</sup> Filow, 1937/8, pp. 1-7.

<sup>123</sup> Schmidt, 1902, p. 254.

<sup>124</sup> Zübeyr, 1934, p. 93.

<sup>125</sup> Childe, 1936, p. 113 ff. It should be noted that the spiral-headed pins of the Gumelnita complex were probably hammered, whereas the Aegean-Near East series seem to have been cast. Cf. on this, Nestor, 1928, p. 131, and Childe, 1939, p. 125.

<sup>126</sup> Bittel, 1934, pl. XIX.

<sup>127</sup> Zübeyr, 1934, pl. VI, and p. 93.

<sup>128</sup> Kazarow, 1914, pp. 66-74, and Bittel, 1934, pp. 104-5.

<sup>129</sup> Kind information of V. Mikov.

<sup>130</sup> Heurtley, 1939, p. 129.

<sup>131</sup> Childe, 1939, p. 112.

<sup>132</sup> *Ibid.*, p. 115.

<sup>133</sup> The several intensive reconnaissances of Fewkes have failed to uncover any typical Early Danubian Bronze Age implements; cf. Fewkes, Goldman, Ehrich, 1933, pp. 17-32; Fewkes, 1934, pp. 29-62; Fewkes, 1935, pp. 10-18; Fewkes, 1936, pp. 5-82; Fewkes, 1937, pp. 329-402.

<sup>134</sup> Heurtley, 1939. Excavations at 19 sites, collections from 38 more (cf. pp. xxii-xxiii), have failed to produce any.

ing: ingot torques, lock-rings with flattened ends, racquet pins, knot-headed pins, basket-shaped earrings. The Oriental fashions of older periods probably are responsible for the re-emergence of these types in Central Europe,<sup>135</sup> but their way of transmission does not seem to be the obvious direct route, the "Great Diagonal Road" through southeastern Europe.

The eastern Balkans, rich in native ores, seem rather to have produced a native Copper Age culture, when in all probability copper was locally smelted. This development, known as the Bulgarian Tell or the Gumelnița culture, gave way to two migrations, one from the North, or perhaps the West,<sup>136</sup> with the "Hungarian" type axe, the other from western Anatolia. Neither brought with them the characteristic objects of the Danubian Early Bronze Age, but in Bulgaria they were responsible for the growth of a local phase.

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- <sup>135</sup> Childe, 1933, pp. 217-22, and 1939, 1, p. 17 ff. For dating of the knot-headed pins, Bittel, 1938, pp. 9-19.
- <sup>136</sup> In the copper-producing Timoška area several "Hungarian" type copper axes have been found, indicating a possible route of entry into Bulgaria, and a probable search for metals at that time. Cf. Fewkes, Goldman, Ehrich, 1933, p. 36.

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ARCHAEOLOGICAL NEWS AND DISCUSSIONS  
NOTES ON RECENT ARCHAEOLOGICAL EXCAVATIONS  
SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN  
CURRENT PUBLICATIONS

STEPHEN B. LUCE, *Editor-in-Charge*

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NECROLOGY

**George Andrew Reisner.**—GEORGE ANDREW REISNER died peacefully at the age of seventy-four, at his camp behind the Great Pyramid on June 6th, 1942. Here he had lived and worked for over forty years, and here, after a prolonged illness endured with uncomplaining fortitude, he died. So closes the career of one of the great figures of modern archaeology, but the effects of his long productive life remain in the influence which he exerted by teaching and example over a host of workers of many nations and in varied fields of archaeological endeavor.

It is not my purpose here to give an account of his accomplishments or of the positions of honor and responsibility which he so ably filled during nearly half a century of professional life. Such information may be found in the pages of *Who's Who*, in the listings of his writings in library catalogues, and in the exhibition galleries of the Cairo Museum and the Museum of Fine Arts in Boston. As the full realization of his passing gradually penetrates the consciousness of one who knew him well and who worked with and under him for more than twenty-five years, my thoughts turn rather to "Papa George" Reisner the man. As I look back over these years of association, the kaleidoscope of memory seems to focus on a few dominant scenes. I remember his hearty laugh, the vast fund of anecdotes in which one saw reflected the deep affection which he had for the Egyptian peasants whom he knew so well, and the unfailing patience and courtesy with which he received visitors in his office, whether tourists on their first trip to Egypt, native Egyptians with whom he loved to discuss politics at considerable length and with deep understanding of local problems, or distinguished visitors from all parts of the world. He loved dearly to talk about his work, but he was equally at home discussing American politics, the problems of the British Empire, for which he had an intense admiration, or the economics of Europe. But perhaps clearest of all are

those days of early August 1914 when he spent long hours of intensive study over white papers, blue books, yellow books,—the whole mass of justificatory documentation issued by both protagonists in the great struggle then opening. Little work was done that first week, but there were many hours of silent pacing back and forth in his work room, the consumption of vast quantities of tobacco and matches, and finally the decision as to where the right lay, and the severance of old and intimate ties with the Germany he had loved. I remember the tears which rolled down his face as he stated his position—truth and right at whatever cost to his personal feelings. Indeed, the love of truth, the steadfast following of duty, and a total disregard of self, were the dominant traits of his personality. He could be hard—he was sometimes irritable, but these less attractive qualities resulted from his iron will and devotion to the service of scientific research. He worked himself far harder than he asked others to work, and during the years I was with him in Egypt and the Sudan, I never knew him to take a holiday.

During his long career as excavator Reisner developed scientific methods of field work to a higher point of perfection than any other previous worker, and the men who, through the years, have served their apprenticeship in his camp, or have come under his influence less directly, have borne witness in their work to the soundness of his methods. W. F. Albright in his Presidential Address before the American Oriental Society in 1936 (*JAOS* lvi, p. 131) said of him: "No excavator anywhere in the world has equalled the care in digging and the completeness in recording exhibited by Reisner in his best work, as in the tomb of Queen Hetep-heres. In his archaeological work it may be said that no phase is neglected, whether the technique of field work, the recording of details, or the treatment of surveying, architecture, photography, and drawing. . . . Followed closely by his pupils, Fisher, Winlock, [Firth] and others, Reisner has created the





most important contemporary school of excavators. His methods have been copied by British archaeologists, notably by Woolley, Frankfort (whose training was almost wholly English), Garstang, Guy, Rowe, Starkey, and have powerfully influenced German and French excavators."

In a review of *Naga-ed-Dêr III* which appeared in *Antiquity* for December, 1933, David Randall-MacIver had this to say about his work: "In comparison with many other sites that he has worked, Naga-ed-Dêr must have seemed to Dr. Reisner rather a poor place; and it is infinitely to his credit that he has succeeded in making of it an archaeological document of great importance. In his skilled hands it becomes the instrument for

tracing the whole development of provincial architectural art and industry during a most difficult and intricate period of transition between the archaic and the better known historic periods. Of the immense industry of the excavator, his almost religious devotion to the smallest minutiae of detail, and his determination to win every grain of information that can be sifted from his mass of material, every page of this volume gives incessant evidence. His methods in the field have never been excelled, and it is sufficient to say that they are adequately interpreted by his methods of publication. Finally the inferences which he feels justified in drawing, soberly and with moderation, from his methodical digest of the facts, are of real interest and mark

distinct progress in the building up of the great fabric of Egyptian archaeology."

These are but two of the many tributes to his work and methods written by eminent scholars. George Reisner's international reputation as an Egyptologist rests, to my thinking, on the following considerations. He has revolutionized field work by the adoption of strictly modern scientific research methods, including the minute recording of all evidence and the completion of tasks undertaken irrespective of results in museum material. He was endowed with a profound understanding of the Egyptian mind, both ancient and modern, a powerful but controlled imagination, and brilliant powers of analytical reasoning. These qualities, combined with amazing energy and utter devotion to his science, have made him universally recognized as the greatest of modern excavators in the Near East.

#### DOWS DUNHAM

**J. D. S. Pendlebury.**—Word of the violent death of J. D. S. PENDLEBURY, during the recent invasion of Crete, has come from that heroic and martyred island and the archaeological world is again called upon to mourn the passing of another young British scholar of great promise and to deplore the ending of a brilliant career. As a student of the British School in Athens in 1927 and 1928, Pendlebury came to know intimately not only ancient Greece, but also modern Greece and her people. For a time his activity was diverted to Egypt, where he directed excavations at Tell El-Amarna, but he returned to Crete, worked under Sir Arthur Evans for five years and served as a curator of the Museum at Knossos. His first-hand knowledge of Egyptian and Cretan antiquities made it possible for him to fill one of the outstanding needs of the prehistoric Greek field by publishing his *Aegyptiaca*, in 1930. In that volume he collected all the known Egyptian objects, down to the end of the Twenty-Sixth Dynasty, discovered on Greek archaeological sites, explained the relations of each of those sites with Egypt, and gave maps showing the distribution of objects from the land of the Nile in the Aegean and of objects of the Aegean in Egypt. His service under Evans and at Knossos enabled him, with the assistance of others, to organize the stratigraphical Museum at Knossos, 1933-1937, a model service to scholars interested in prehistoric antiquities. His latest book, *The Archaeology of Crete* (Methuen, 1939) gave evidence of his great ability and knowledge of the field. The monu-

mental work of Evans, *The Palace of Minos*, had given us in great detail the achievements of the Cretans and especially of the people of Knossos during the Minoan Age, but a concise and handy account of that great era, and of the culture which followed it in the historic periods was especially needed. We have such a study now in Pendlebury's book. The lucid way in which the various remains and periods of Crete are presented is ample evidence of the brilliant ability of the author. With great anticipation the world of scholars was expecting the sequel of this work, his discussion of the remains and history of Crete in the post-Roman periods, a work cut short by his untimely death. In studying Pendlebury's work, one is impressed by his capacity to grasp and express fundamental facts, his ability to build theories clearly indicated or weigh theories expressed by others, his thoroughness, his lucidity, his equilibrium and his modesty. A deep devotion to his work and to Crete and its people underlies his achievement. One has only to read the closing paragraph of his introduction, to realize this devotion: "To have stood on Ida, on Dikte and on Aphendes-Kavousi in the clear shrill wind and to have toiled through the hot little valleys with that unforgettable smell of herbs is an experience the memory of which nothing can ever take away from you." In the death of Pendlebury, the scientific world has lost an eminent scholar and Crete a devoted friend, whom the island will keep in her heart and cherish forever:

"Γιὰ τέτοια ἐλεύθερα κορμιά ποῦ ἐσώριασε τὸ βόλι εἶναι ἀξιο μνημα μεταβιάς ἢ γῆ τῆς Κρήτης ὅλη, κι' ὅσο αὐτοῦ μέσα δὲ θ' ἄκουῦν παρ' ἄλυσσες καὶ θρήνους, ἅχ! τῆς Πατρίδας ὁ σταυρὸς θάνατι σταυρὸς γιὰ ἐκείνους."

(G. Markoras, ὁ "Ὀρκος.")

G. E. M.

**Ralph Van Deman Magoffin**, President of the Archaeological Institute of America from 1921 to 1931, died at Columbia, S. C., after a long illness, on May 15, 1942, at the age of sixty-seven. He was born in Rice County, Kansas, on August 8, 1874, and was graduated from the University of Michigan in 1902. After graduate study at Johns Hopkins University, Berlin, and the American School of Classical Studies at Rome, he received the degree of Ph.D. from Johns Hopkins in 1908. From 1908 till 1923, barring the years of the

First World War, and the academic year 1920-21, when he was in charge of the School of Classical Studies of the American Academy in Rome, he was a member of the faculty of Johns Hopkins in the Classical Department. In 1923 he removed to New York University, as Professor-in-Charge of the Department of the Classics, where he remained till his retirement in 1939 as professor *emeritus*. A frequent visitor to Classic lands, especially during his Presidency of the Institute, he was decorated by the Greek Government with the Order of the Saviour, and held membership in many European Learned Societies. A veteran of the War with Spain, he re-enlisted in the Army on the entry of the United States into the First World War, and held the rank of Lieutenant-Colonel in the Quartermaster Corps at its end. Among his publications may be listed *The History and Topography of Praeneste*, *The Quinquennales*, *The Lure and Lore of Archaeology*, and another popular book on archaeology, *Magic Spades*. With two other officers of the Army he compiled, after the First World War, *An American Guide-Book to France and its Battlefields*, a most useful source of information on the operations of the Western Front. During his Presidency, the Institute underwent a period of great expansion and growth. He was twice married—his first wife died in 1917, and his second wife, whom he married in 1920, survives him.

#### S. B. L.

**Norman de Garis Davies.**—This distinguished Egyptologist died at Oxford on November 4, 1941, at the age of seventy-six. He had been on the staff of the Egyptian Expedition of the Metropolitan Museum from 1907 until his retirement in 1939, but he continued the publication of his records up to the time of his death. A masterly draughtsman, his work consisted largely of recording in line drawings and colored reproductions the reliefs of the tombs in the Theban necropolis. His formal education was obtained at the Universities of Glasgow and Marburg, and his first introduction to Egypt was with Sir Flinders Petrie at Denderah. Before joining the Metropolitan staff, he had been for some years with the Egypt Exploration Society. An indefatigable worker, he frequently published volumes of the first importance in Egyptian studies, and "the sum total of his printed records will remain the most valuable contribution which any single man has made towards the preservation of Egyptian records and the interpretation of Egyptian life" (A(M-

BROSE) L(ANSING) in *BMMA*. xxxvii, 1942, p. 43).

#### GENERAL AND MISCELLANEOUS

**The Society of Antiquaries and War.**—In *AJ.* xxii, 1942, pp. 1-2, a short statement appears covering the efforts made to protect the Society's property during the war. Thirty-four tons of books have been removed to the provinces, as well as the voluminous card indexes. In addition many valuable objects including the brasses and most of the pictures have been removed. It is hoped that the *Journal* will be issued regularly and it is interesting to note that a volume of *Archaeologia* and two research reports are said to be in course of publication.

**Prehistoric Cave-Paintings in Dordogne.**—M. L'ABBÉ BREUIL reports briefly in *CRAI*. 1940, pp. 387-390, the discovery of an important prehistoric cave near Montignac. The walls of several subterranean rooms and corridors are richly decorated with large and small representations of animals (deer, bison, oxen), many in vivid polychromy. These are dated provisionally to a time between the Aurignacian and Solutrean periods. Illustrations of the above paintings are published in *ILN*. Feb. 28, 1942, pp. 277-280, where they are classed as Aurignacian. The animals depicted include a wild mare in foal, followed by a long-haired pony; other equines resembling the modern Shetland pony; cattle of different types, including a remarkable portrait of an aurochs; stags; a bison; and a rhinoceros. (See *AJA*. xlv, 1941, pp. 17, 509-512).

**Palaeolithic Implements.**—The British Museum reports the acquisition, in two gifts, of two series of palaeolithic flint implements from Barnfield Pit, Swanscombe, most of which were associated with the well-known Swanscombe skull (*BMQ*. xiii, 1939, p. 63).

**Prehistoric Copper.**—In *AJ.* xxii, 1942, pp. 32-38, H. H. COGHLAN traces the development of copper metallurgy up to 3000 B.C. when the industry became firmly established. Emphasis is laid on excavations in Iran, particularly at Tepe Sialk, from which it appears that melting of native copper preceded smelting of copper ores. The first clear evidence for the production of true bronze is found in the royal tombs at Ur, but it disappeared in Sumer, although manufacture continued from just before 3000 B.C. to 1100 B.C. at Tepe Giyan. Shortly after 2500 B.C. the knowledge of bronze reached Anatolia, whence it spread to

Troy and to Crete. From there it passed to Greece, Spain, Brittany and Cornwall.

**Hill Forts in Normandy.**—In *AJ.* xxi, 1941, pp. 265–270, R. E. M. WHEELER summarizes the results of an expedition to Normandy in 1939. Briefly these are: (a) the continental source of British multiple earth-works in the Venetic area of Brittany; (b) in and northeast of the Seine region the hill forts are ascribed to the Belgic culture of La Tène III; (c) some of these continued in partial occupation to about the middle of the first century A.D.; (d) the great development of earth-works in south and southwest England after B.C. 300 is due largely to provincial initiative.

**Origin of the Coritani.**—In *AJ.* xxi, 1941, pp. 323–332, FELIX OSWALD ascribed the origin of these people, whose chief town was Leicester, to migration from the Marne district in the second century B.C.

### EGYPT

**Sir Robert Mond's Bequest.**—The late Sir Robert Mond left to the British Museum his very important collection of Egyptian antiquities. I. E. S. EDWARDS, in *BMQ.* xiii, 1939, pp. 41–45, pls. XIX–XXIV, selects a few outstanding pieces for description and publication. These include an Eighteenth Dynasty portrait head of an Egyptian official, a number of *shawabti* figures of the Eighteenth and Nineteenth Dynasties, one of which is encased in a mummiform coffin and an outer inscribed wooden sarcophagus, a splendid bronze axe-head of the same epoch, showing a dog hunting a gazelle, a terracotta figure of a dog, of the Roman period, and a number of statuettes, of periods ranging from the Middle Kingdom to Roman times.

In *ibid.*, xiv, 1940, pp. 1–5, pls. I–VI, the same writer concludes his account of this collection. He selects for especial comment and publication two fine mummy portraits of the Roman period, dating perhaps as late as the third century A.D.; a stone vase in the form of a frog, belonging in the predynastic era; a so-called “archer loose” of uncertain date, but probably belonging in the third to sixth centuries of our era; two Roman portrait heads of uncertain date; a wooden head-rest, dated by an inscription in the Eighteenth Dynasty; a bronze razor, of a kind used between the Twelfth and Eighteenth Dynasties, with a case, probably modern, though made of ancient wood; two magnificent bronze daggers of the

Middle Kingdom; a polished oyster-shell, bearing the name of Senusret I of the Twelfth Dynasty, of a type identified by Winlock as a regimental badge worn by one of his archers; a number of scarabs of different periods; and a group of beautiful necklaces of dates between the Middle Kingdom and the Ptolemies.

**Egyptian Bird Trap.**—NORA E. SCOTT publishes a bird trap from Egypt, with its missing parts properly restored, that came to the Metropolitan Museum with the Theodore M. Davis Collection. Its identification is made certain by a similar object in Cairo, and by wall reliefs from tombs, which show that such objects were used as early as the Fifth Dynasty. This example, however, probably cannot date before the Twelfth. It is in the form of a net, closed by means of a spring, and is not capable of catching more than one bird at a time. A trapper would therefore operate several of these traps, luring the birds by imitating their calls. The workmanship of this trap is so dainty that it could, if necessary, be held in the hand (*BMA.* xxxv, 1940, pp. 163–164; fig.).

**Gold Scarab.**—The British Museum has been presented with a most unusual scarab of solid gold, dating in the Middle Kingdom. It has an openwork design of the god Bes, flanked by two figures of the hippopotamus goddess Thoueris. Such objects are exceedingly rare (I. E. S. EDWARDS, in *BMQ.* xiii, 1939, p. 99, pl. XXXVIII, c, d, e).

**Egyptian Statuettes.**—SIDNEY SMITH notes, in *BMQ.* xiii, 1939, pp. 45–46, pl. XXV, the acquisition by the British Museum of three outstanding specimens, two of which had been previously published. The first, a most charming ivory lion, had been dated by the late H. R. Hall in the late predynastic period, but the writer believes it to be later, although he gives it no exact date. A bronze figure of an ibis (a form of Thoth), formerly in the collection of Lord Carmichael, and several times published, “has long been known to Egyptologists as one of the best extant bronzes of the Late Period” (seventh to fifth centuries B.C.). Finally, a bronze head of Osiris, probably belonging in the Ptolemaic period, is a noteworthy example of its kind.

**Late Egyptian Bronze.**—WILLIAM C. HAYES publishes a unique little statuette in the Metropolitan Museum, of uncertain provenance, and late date, probably belonging to the period between the Twenty-Second and Twenty-Fifth Dynasties (945–663 B.C.). It represents a woman,



seated on a throne, which rests on top of a papyrus umbel. This woman cannot be identified as a goddess, as she has no attributes; it is rather a portrait statuette of a private individual, or a lesser member of the royal family of the period, which makes it a great rarity, as such figures are nearly always of divinities. There are no inscriptions. The papyrus umbel is hollow-cast, and formed the head of a ceremonial staff, in which case the figure may well be a portrait of the owner of the staff. Such objects were found, in gold and silver, in the tomb of Tût'-ankh-Amûn (*BMMA.* xxxv, 1940, pp. 177-178; 2 figs.).

**Funerary Helmet in Faience.**—In *BMMA.* xxxvii, 1942, pp. 41-42 (fig.), LUDLOW BULL publishes a unique object, recently acquired by the Metropolitan Museum, a full-sized model of a helmet, in faience, in imitation of a bronze, or more probably leather, original, dated by an inscription in the Twenty-Sixth Dynasty (663-525 B.C.). This helmet, which had been in private hands before its acquisition by the Museum, is alleged to have been found on the head of a mummy. The shape of the helmet does not otherwise appear in Egypt in representations of fighting men, and no actual Egyptian helmet has survived. It is suggested that the shape may be derived from the crown of the rulers of Upper Egypt.

**Temple of Hibis.**—The Metropolitan Museum announces (*BMMA.* xxxvii, 1942, pp. 44-45) the publication of part I of this undertaking by H. E. WINLOCK. The temple was begun about 510 B.C., and is the outstanding example of the Saite style. A list of the coins found, with their dates, had fortunately been prepared by the late EDWARD T. NEWELL before his death.

**Head of a Priest.**—From the collection of the late Lord Carmichael the British Museum has received a fine red sandstone head of a priest, of about one-half life size. SIDNEY SMITH, in publishing it, notes that while the sculptor has followed all the traditions of Egyptian art, it looks more as if it had been made in Roman times than in the dynastic period, and states that "the many questions it raises add to its interest for the Museum" (*BMQ.* xiii, 1939, pl. XXXIX).

**Egyptian Jewelry.**—A(MBROSE) L(ANSING) announces a gift to the Metropolitan Museum of a number of Egyptian objects of personal adornment by Mrs. Edward S. Harkness (*BMMA.* xxv, 1940, pp. 181-182). Chief in importance are two fine gold necklaces and a signet ring of the

Graeco-Roman period, and a scarab of the Eighteenth Dynasty.

### MESOPOTAMIA

**Sumerian Literature.**—From about the middle of the fourth millennium to almost the beginning of the Christian Era, Sumerian was the classical tongue of the cuneiform world. After studying the Sumerian language for years under the foremost authority (Arno Poebel), S. N. KRAMER is now making a thorough investigation of Sumerian literature. Because most of the literary Sumerian texts come from Nippur, Kramer has examined the tablets from that site, which are now in Istanbul and Philadelphia. By incorporating unpublished texts and by collating the published ones with the clay originals, he is enhancing and correcting our grasp of Sumerian myths and epics. In *PAPS.* lxxxv, 1942, pp. 293-323 & pls. 1-10, he gives a detailed study of "Inanna's Descent to the Nether World," the Sumerian forerunner of the now better known Accadian "Ishtar's Descent to the Nether World." The text relates that the goddess Inanna has set her heart on visiting the Underworld, where her sister Ereshkigal holds sway. Inanna, fearing foul play, instructs her servant Ninshubur to get the aid of some major god in case she is slain. If other gods fail, Ninshubur is to turn to Enki, who resides at Eridu and who possesses "the food of life" and "the water of life." Inanna then descends through seven gates, at which she is gradually stripped of her robes and jewels, and finally reaches Ereshkigal and the Anunnaki deities. There, in the Underworld, Ereshkigal is slain and impaled. After waiting in vain for three days for his mistress to return, Ninshubur appeals successively to the gods, but meets with refusal until he comes to Enki, who fashions two creatures and thereupon dispatches them with orders to administer the food and water of life sixty times to Inanna's corpse. This they do and Inanna, restored to life, emerges from the Underworld.

KRAMER adds two welcome excursuses, one an account of the decipherment of Sumerian, the other a descriptive list of Sumerian epics and myths. Readers of this JOURNAL will be particularly interested in KRAMER's statement that the most promising site for excavation for the purpose of throwing light on Sumerian literature and culture is Eridu.

**Babylonian Antiquities.**—C. J. GADD notes, in *BMQ.* xiii, 1939, p. 98, pl. XXXVIII a, the



acquisition by the British Museum of a fine steatite figure of a crouching boar, very similar to a sculpture from Ur, and dated in the Jemdet Nasr period, the last strictly prehistoric age in Babylonia. In *ibid.*, p. 98, pl. XXXVIII b, SIDNEY SMITH publishes a charming golden figure of a goat, recently presented to the British Museum, much resembling amulets in the form of animals found in tombs of the archaic Sumerian period at Ur. This figure, however, is certainly not an amulet, and its use is uncertain.

### PALESTINE AND SYRIA

**A Correction.**—MILLAR BURROWS calls to the Editors' attention the fact that a statement attributed to him in the New York *Herald-Tribune* of March 1, 1942 (summarized in this JOURNAL, p. 266), was incorrectly quoted. The pottery in question was found with flints of the Natufian culture, indicating that this culture was Neolithic, instead of Mesolithic, as previously supposed, although its exact place in the Neolithic age in Palestine is disputed. The Editors deeply regret this error, due doubtless to erroneous interpretation of the press release by the newspapers.

**Tell Brak.**—*BMQ.* xiii, 1939, pp. 99-101, pls. XL, XLI, gives a brief account of excavations conducted by M. E. L. MALLOWAN in 1938 at this site, in the northeast part of modern Syria. These excavations were exceedingly fruitful. The uppermost level is dated about 1500 B.C., but the earliest discoveries made go back to the late Jemdet Nasr period (about 3100 B.C.). In the upper strata a certain amount of the pottery known as "Hurrian" was found, apparently imported for luxury use. There was a gap between the period of 1500 B.C. and a level corresponding to the Third Dynasty at Ur (2300-2000 B.C.), where a number of cuneiform tablets were found. Contacts with Mesopotamia were constant through all periods of occupation. The most important finds were a series of unique sculptured heads of alabaster, probably representations of a female deity, one of which is illustrated. They are in the form of masks and are quite distinct from anything found in Mesopotamia. In adjoining sites, in which trial soundings were made, some very unusual pottery (illustrated) was found, marking a transition between the ware from Tell Halaf and that from al-'Ubaid, and dating about 1500 B.C. These excavations have contributed greatly to our knowledge of the history of the period under study.

**Excavations at Palmyra.**—A report by H. SEYRIG on the latest campaign of excavations at Palmyra is published in *CRAI*, 1940, pp. 237-249, with illustrations and plan. The large task of clearing the market place of the city was carried out with the assistance of men and equipment provided by General Weygand. The agora is a perfect rectangle, measuring 70 m. by 82 m. It is surrounded by porticos 12 m. high and 8 m. wide, resting on 80 Corinthian columns. The outer walls are pierced with 11 gateways. At the western corner, facing the agora, are remains of a small rectangular temple, distyle *in antis*, measuring 12 m. by 14 m. Against the rear wall of the temple stands the base of the cult-image, an icon, relief, or statue. At a date later than the original construction, benches were built around three sides of the room; these would provide space for 40 banqueters at the ritual feasts which were presumably held here.

Many inscriptions were found during the campaign. The earliest belong to the period 76-81 A.D., but the agora was certainly not built, or at least not completed, until the time of Hadrian. It is probable that the older texts were preserved by being reinscribed in the second century. The later documents include many honorific decrees which contain important information about commercial activity throughout the Middle East.

The agora preserved clear signs of the manner in which it had been hastily fortified by Zenobia and plundered and burnt after its capture.

### IRAN

**Iranian Art in New York.**—The acquisition of a fine relief from Persepolis of the fifth century B.C. by the Metropolitan Museum prompts M. S. DIMAND, in *BMAA.* xxxv, 1940, pp. 110-116 (5 figs.), to call attention to the collections of Iranian art in that Museum. This is done by tracing the history of Persia from prehistoric times until the sixteenth century of our era. After referring to the Luristan bronzes, and to prehistoric pottery in the Museum beginning in the third millennium B.C., he takes up the Achaemenid dynasty, under whose rule Persepolis was built. The relief acquired by the Museum is from a staircase, and represents a Median. Other objects of this period are described. This dynasty was conquered by Alexander the Great, and thus Hellenizing styles were introduced into the local art. This is best shown by objects of the Parthian

period. Of this period he selects for publication a gold clasp with stone inlay from the Morgan collection, but refers to many other examples in New York. In 226 A.D. the Sasanian dynasty commenced, which endured for four centuries, until the Arab conquest in 642. Sasanian art was very rich, and reveals a high civilization. Selected for publication is a magnificent silver dish, dating in the fifth or sixth century, showing a king hunting ibexes. Other famous examples of this art, both in New York and elsewhere, are mentioned. After the Arab conquest, the Iranians gradually adopted Islam, but maintained for some time the Sasanian art tradition, and even after a universal Islamic art prevailed, the Iranians succeeded in preserving their individuality. Selected for publication from the extensive collections of the art of this period in the Metropolitan Museum are a fine jug of the Seljuk period, dated at 1215-16, and a beautiful miniature of the Safavid period, which can be accurately dated at 1525.

**Sasanian Relief.**—The Metropolitan Museum has acquired by gift a fine stucco relief, the provenance of which is known to be a site in Iran. It represents a horseman, probably a king or prince, galloping to the left, shooting with a bow and arrow. He is in war regalia, and his quiver hangs at his side. The panel is in high relief, and details were originally rendered in polychromy, which has disappeared. It has all the characteristics of Sasanian sculpture, and can be dated in the period of Khusrau II, 590-628 A.D. (M. S. DIMAND, in *B.M.A.* xxxv, 1940, pp. 191-192; fig.).

**Seljuk Hoard from Persia.**—BASIL GRAY, in *BMQ.* xiii, 1939, pp. 73-79 (3 figs., pl. XXXII and XXXIII a), describes a group of objects in precious metals, forty pieces in all, one of gold, the rest of silver, said to have been found at Nihavand in Persian Iraq. In style they belong to the Seljuk period, and this is confirmed by an inscription in Arabic characters on one of the objects. Another example, an amulet case, bears a Kufic inscription, but the data for style are not conclusive, as the inscription is merely a quotation from the Koran. Other pieces include silver hoops and belt plaques. They are compared with similar finds from South Russia, and a series in the Arab Museum in Cairo, as yet unpublished. By these comparisons, by the technique, and by the inscriptions, a date in the latter part of the twelfth century of our era is considered the most probable. The finest object in the hoard is a golden wine-bowl, 7.7 cm. in diameter, decorated in the in-

terior with a design of a duck, superimposed on arabesques, and on the outside with two pairs of similar birds confronted, and alternating with four decorated roundels. On the outside, below the lip, is a Kufic inscription, a quotation identified as from a poem written in the tenth century. The bowl itself could be either of that century or of the eleventh. The importance of this hoard is largely due to the scarcity of objects in precious metals that have been discovered from this era.

**Persian Storage Jar.**—In *B.M.A.* xxxvii, 1942, pp. 74-75 (fig.) HANNAH E. McALLISTER publishes a fine Iranian storage jar, 31½ in. high, recently acquired by the Metropolitan Museum, one of only seven known examples of its kind. It is covered with a brilliant glaze of turquoise blue, and is adorned with four zones of decoration in low relief, separated by indented round moldings. On the neck is a Kufic inscription, wishing "happiness, peace, nobility, power, and long life to the owner." On the shoulder is a procession of winged griffins against a background of arabesques. These turquoise jars are all very similar in shape and design, and may come from the same hand, but it is not as yet possible surely to identify the place of manufacture. A date of about 1200 A.D. is given.

## GREECE

### GENERAL AND MISCELLANEOUS

**Papers of Francis H. Bacon.**—Members of the Archaeological Institute of America will be interested and gratified to learn that the Massachusetts Institute of Technology has recently acquired, by purchase, for its library, all of the diaries, notes, and papers of the late FRANCIS H. BACON, one of its most distinguished alumni. These papers include "The Log of the Dorian," describing the famous cruise when Assos was first visited and selected for excavation; the field journals of the campaigns at Assos; a manuscript entitled, "Assos Days," and all his other papers and manuscripts on subjects connected with architecture and archaeology. They will thus become available for the use of qualified scholars, who may be interested in tracing the beginnings of the study of Greek archaeology in the United States.

**Cadmus and Greek Alphabet.**—In *Crozer Quarterly* xix, no. 2 (April, 1942), pp. 126-134, W. N. BATES proposes a solution of problems relating to "Cadmus and the Greek Alphabet." He concludes (p. 134): "(1) The people of Northern Syria had evolved a complete alphabet by the

14th century B.C. (2) They discarded their awkward cuneiform characters in the 13th century for forms which they learned from the Achaean settlers in their land. (3) The Achaeans in return learned the idea of alphabetic writing from these Phoenicians. (4) Cadmus was a historical personage. He was an Achaean who lived in Syria and, therefore, might be called a Phoenician. (5) He brought to Greece the knowledge of alphabetic writing, perhaps in the 13th century B.C. (6) The forms of his letters were derived from Minoan-Mycenaean writing."

**Dance of the Holy Birds.**—In *CJ.* xxxvii, pp. 351–361, LILLIAN B. LAWLER, taking up a much-discussed fragment of Alcman, where the priestesses of Orthia are referred to as "doves," shows that this identification of gods or votaries with animals or birds is not unusual, and that the dove was often identified with Artemis as πτόνια θηρῶν, not merely in Sparta but in Corfu, where the shrine of Artemis has yielded many terracotta figurines of the goddess holding a dove. Doves were also sacred to Dione, goddess of Dodona. These goddesses seem to stem back to the great dove-goddess of the Cretans. Minoan shrines and tombs have yielded many representations of dove-like birds, and as in Homer, so in Crete, as Minoan art has established, divinities manifest themselves to man in bird form. One motive for a dance is to invoke a deity, and in such religious dances the dancers often wear animal costumes and masks. There is evidence that in Crete such dances were held—literary, in the tradition that Theseus established a "crane" dance at Delos on his way home from Crete, which the writer believes to be an adaptation of an already existing Cretan dance; archaeological, in the discovery by Hogarth at Zakro of Late Minoan seals, showing a dancing woman with a bird's head and wings, and by the finding of similar objects at Mycenae, Knossos, and recently at Baira in Crete. Another piece of evidence is the well-known group from Palaikastro, which appears to represent a bird dance. This dance, which may have originated in Crete, seems to have spread to the east, and influenced the dove cults of fertility goddesses such as Semiramis, Ishtar, and others. In Cyprus, Iron Age terracottas have been found, closely resembling the Palaikastro group, such as one in New York (*Cesnola Cat.*, 2118). The chief divinity of Cyprus was, of course, Aphrodite, whose relationship with the eastern goddesses is admittedly very

close. In Greece proper, and especially the Peloponnese, many of the Cretan dances were bodily taken over, among others, the bird dance. The dancers were maidens, and the meter used by Alcman implies that the tempo was swift, with changing and recurring motifs. Sometimes, apparently, it was competitive, with two sets of dancers vying with each other to win a prize. It was probably performed at night, and was likely to be ecstatic and orgiastic. Other records in Greek literature and art of other bird dances are enumerated, but differ from the dances of women votaries and priestesses with which this paper is particularly preoccupied.

### SCULPTURE

**Preliminary Report on the Chryselephantine Statues of Delphi.**—In *BCH.* lxiii, 1939, pp. 86–119, P. AMANDRY catalogues, illustrates (plates xix–xlii), and comments upon some 65 major objects, and a multitude of scraps, of gold, silver, ivory, iron (the iron is used solely in spear-points and nails), terracotta, and bronze which had been thrown pell-mell into two trenches evidently dug for the purpose under the area later covered by the extant early Byzantine pavement of the Sacred Way. Parts of two feminine head-dresses are recognizable, hence there were at least two large female statues; there was also a lion, fragments of which were found mostly in the second, lesser trench, but some were in the larger trench. The materials used in representing the human figures consisted of ivory for the flesh, gold for the ornaments; the drapery was gilded metal; the core of the whole was wood, which has decomposed, but which had suffered also from a fire. The workmanship and style of the large statues are Ionian of the sixth century B.C. The statues were injured, and consequently buried, at some time after 450 B.C., as is shown by the style of some lesser objects buried with them—objects fine in themselves, but likely to be neglected in favor of the sensational chryselephantine images.

Supplementing this original report of the discovery, are notes in the pages of *CRAI.* 1940: a letter from R. DEMANGEL telling of the satisfactory progress of reconstruction at the hands of John Bakoulis (pp. 96–97); 3 new photographs (p. 205); and a notice in the report on the activities of the School by P. ROUSSEL (pp. 269–272).

**Head from Xanthos.**—In *BMQ.* xiii, 1939, pp. 39–41, pl. XVIII, C. M. ROBERTSON publishes

a female head that was long exhibited among the remains of the Nereid Monument from Xanthos, but which has no relation to any of the other sculptures from that monument, and was not found on the same part of the site. It gives part of the left side of a girl's head, showing the ear, part of the cheek and neck, and a part of the hair, bound by a sphendone. The probability is that it is from a statue in the round. It dates about 480-470 B.C., and may well belong to the torso, Cat. no. B 318, also from Xanthos. Its quality is noticeably finer than that of most Xanthian sculpture.

**The Lion Monument at Amphipolis.**—In *BCH*. lxiii, 1939, pp. 4-42 (see also plates I-IX), J. ROGER publishes a full account of the monument which has since been made the subject of a small book by O. Broneer (*The Lion Monument at Amphipolis*, 1941). Since Roger's article will naturally be discussed in reviews of Broneer's book, no more extended notice is given here.

**Attic Stele in Chicago.**—In *Art in America* xxx, 1942, pp. 104-109 (5 figs.), MARGARETE BIEBER publishes a fourth-century grave stele in the Art Institute in Chicago. Made of Pentelic marble, it is surely of Athenian workmanship. It is in fragments which join, but much is lost. The composition includes a seated man and a standing man and woman. The two men originally grasped each other's right hands. Unusual is the treatment of the standing woman, whose face and pose reveal strong emotion. On the analogy of a marble lekythos in the Schliemann house at Athens, on which a similar group is portrayed with identifying inscriptions, it is conjectured that the seated man was named Timotheos, the woman, his daughter, Phanokrite, and the standing man, her husband, Phelleus.

**Praxitelean Statuette in Los Angeles.**—VICTOR MERLO, in *Los Angeles County Mus. Qu.* ii, 1942, pp. 6-11 (5 figs.), publishes a statuette of Pentelic marble, recently presented to the Los Angeles Museum, of uncertain provenance, quite surely a copy of a fourth-century original, but itself probably dating from the beginning of the third century. Originally found in fragments, it has been twice mended, not very successfully. Before coming to the Museum, it had been in private collections in Switzerland, Germany, Sweden and the United States. It is unquestionably in the style of Praxiteles, and has been called a copy of either an Eros, a Satyr, or a Dionysos. The writer believes it to be an Eros, and quite

convincingly compares it with the Eros from the Palatine, now in the Louvre.

**The Great Frieze at Pergamon.**—Renewing the argument over a subject long disputed, CHARLES PICARD publishes an article on the identification of the figures in the north frieze of the great altar at Pergamon (*CRAI*. 1940, pp. 158-176). He rejects many of the earlier designations, e.g., those of Robert, Puchstein, Collignon, and von Winnefeld, and gives strong support to the theory recently proposed by G. von Lücken (*JdI*. 1939). According to von Lücken, the figures must represent not an heterogeneous collection of divinities, but one clearly related group. Picard attempts to show that they are the Powers of the Waters and their close kin. He insists further that the religious beliefs embodied in the frieze are to be understood as belonging largely to the old Hellenic tradition, rather than to innovations of the Hellenistic age.

**Bronze Statuette from Lausanne.**—A small bronze figure of Mercury was found at Vidy, the ancient Lousonna, and receives brief preliminary notice by W. DEONNA in *CRAI*. 1940, pp. 276-282 (for the excavations of Vidy see *ibid.* pp. 30-37). The statuette as preserved stands 0.1775 m. high; it lacks both feet and the left arm, but is otherwise in remarkably good condition. Deonna sees in the shape of the face, the treatment of the locks, and the general stance, indications that this Mercury was copied from a Greek work of the second quarter of the fifth century and was perhaps influenced by the early style of Polyclitus.

#### VASES

**The Gallatin Collection.**—The Metropolitan Museum, in an article by GISELA M. A. RICHTER (*BMMA*. xxxvii, 1942, pp. 51-59; 8 figs. and cover illustration) announces the acquisition of this famous collection of vases, which has already been published in *CVA. USA*, fascicules 1 (by ALBERT GALLATIN) and 8 (by MARY ZELIA PEASE). Certain of the Gallatin vases have been retained by the collector, but the bulk is in the Museum. Miss Richter describes the manner in which the collection was built up, the forms and techniques of the vases, and selects for republication a number of the more outstanding examples. There are more than two hundred and fifty vases in this great acquisition, and "that there is not a single forgery in the lot speaks well for Mr. Gallatin's flair and discrimination."

**Kylix in Fogg Museum.**—In *Harv St.* lii, 1941,



pp. 41-63, BENITA D. HOLLAND attributes a heretofore unassigned red-figured kylix in the Fogg Art Museum, with a drawing in the interior of a youth ladling something from an amphora, to a pupil of Douris. In analyzing the design of the interior medallion she discusses tondo composition in the work of the chief red-figured cup-painters of the Ripe Archaic period, and shows the various treatments used by them in their efforts to reconcile the shapes contained within the tondo to the circle and to the design of the vase as a whole. For instance, colleagues of Euphronios, such as the Panaitios Painter and Onesimos, were fond of using running figures whose limbs coincide with radii of the circle, or of composing two opposing figures into a V; the Brygos Painter often used a kind of tipped square achieved by emphasizing the diagonals; Makron liked to use a triangle within the circle, often filling in its lower points by means of objects accompanying the human figures. Five steps are to be traced in the evolution of Douris' composition, from running figures like those of the Panaitios Painter (could the two have been co-workers in the atelier of Euphronios?) to static ones in which a single figure stands perpendicular to the exergue line, and paraphernalia fill in the remaining space, as seen on a cup in Boston representing Dionysos. It is to this vase that the one in the Fogg is most closely related in composition. The figure style, technique of drawing, execution, and subject matter bear out the conclusions reached by the study of the tondo in showing Dourian characteristics. But since both drawing and execution of the Fogg kylix are somewhat careless, the author concludes that it is a school piece rather than by the master himself.

**Krater by Niobid Painter.**—In 1933 the Museum of Fine Arts in Boston acquired a large red-figured vase, in fragments so badly put together that it could not immediately be exhibited. It has recently been properly mended, a number of additional fragments that had come to light since the first reconstruction being used. It proves to be a volute-krater of exceptionally large size (twenty-seven inches in height) with designs on neck and body. The main decorations show the departure of warriors. L(ACEY) D. C(ASKEY), in *BMFA*, xl, 1942, pp. 10-13 (6 figs.), describes the vase, with illustrations taken for the most part from excellent drawings, and claims it as one of the finest known examples of the work of the Niobid Painter.

## INSCRIPTIONS

### Tribal Cycles of Treasurers of Athena.—

WILLIAM BELL DINSMOOR, in *Harv St. special vol.*, 1940, pp. 157-182, discusses and confirms Ferguson's theory of the tribal rotation of the secretaries of the treasurers of Athena, extending Ferguson's original tables so that they now date from 447/6 to 322/1 B.C. In the course of this article he publishes emended versions of *IG*.<sup>2</sup> i, 361 (which he dates in 447/6, rejecting Meritt's date of 446/5); 360 (which he considers as between 446/5 and 445/4, with a leaning toward the earlier date) and 255a. This inscription, the last inventory of the pronaos of the Parthenon, he dates in 405/4. Taking up the expense accounts of the treasurers, he adds to *IG*.<sup>2</sup> ii, 1686 two fragments from the Agora (i, 2486 and 2982) and two in the Epigraphical Museum (3032, 12768, this last found by Broneer on the North Slope of the Acropolis). This inscription is dated in 405/4, while another Agora inscription (i, 5799), also dealing with expense accounts, belongs in 404/3. A re-examination of the Erechtheum fragments is made, on the basis of a new piece, also found by Broneer on the North Slope, which Dinsmoor calls XXVIIIa. He now dates XXIX in 407/6, XXVII in 406/5, and XXVIII and XXVIIIa in 405/4.

**Decree of Samothrace.**—In *BCH*, lxiii, 1939, pp. 1-3, P. ROUSSEL corrects certain errors and suggests more probable readings in the decree found at Samothrace and published by Lehmann-Hartleben in *AJA*, xliii, 1939, p. 144.

**Four Didymaeon Inscriptions.**—In *University of California Publications in Classical Philology* xii, 1942, pp. 165-174, J. E. FONTENROSE improves the texts of four Didymaeon inscriptions: (1). *Ancient Greek Inscriptions in the British Museum*, no. 922; (2). *op. cit.*, no. 923a; (3). A. Rehm, *Milet* i, 3, p. 275, part ii; and (4). Dittenberger, *SIG*, no. 213, line 37.

## ITALY

### GENERAL AND MISCELLANEOUS

**Etruscan Sculpture.**—*Magazine of Art* xxxv, 1942, contains an article by EMELINE HILL (pp. 112-113; 4 figs.), based on the recent Phaidon book on this subject. The writer criticizes adversely the lack of historical method in the preparation of the book, and disagrees with many of the conclusions reached by its author, but welcomes the new material made available to scholars and art students.



**Archaic Etruscan Statuette.**—In *Princeton Mus. Record* i, 1942, pp. 9–13 (2 figs.), DORO LEVI publishes a small bronze statuette of a warrior, recently acquired by the Museum of Historic Art at Princeton University. It is said to have been found near Bologna, and is dated in the second half of the sixth century. The warrior wears a helmet, cuirass, pteryges, and greaves, and originally carried a shield and spear. The statuette is of the type of the "Italic Mars," many examples of which have been found widely distributed throughout Etruria. A number of these are compared with this figure. The writer sees in the workmanship the influence of the Ionic style, "which, however, has not yet fully impressed itself, nor entirely eliminated evident traces of the more primitive Etruscan manner," and emphasizes the importance of the cult of Mars among the Etruscans.

**Cameo Portrait of Claudius.**—The British Museum has acquired a magnificent fragmentary cameo of sardonyx, of unknown provenance, formerly in the collection of the late Sir Bernard Oppenheimer, showing a portrait head of the Emperor Claudius, crowned with laurel, and facing right. In all probability the unbroken gem showed the shoulders as well, and was of the same dimensions as the well-known Windsor Castle cameo of the same subject. It presents the emperor in his advanced years, and must have been executed at the end of his reign. The artist made a highly idealized portrait, and displayed complete command of his material. It is very tentatively connected with the artist Herophilos, son of Dioskurides, who signs a cameo of Tiberius in Vienna (D. E. L. HAYNES, in *BMQ.* xiii, 1939, pp. 79–81, pl. XXXIII b).

**Mosaic from Seleucia Pieria.**—In *Bull. Detroit Inst. Arts* xx, pp. 21–24 (fig. and cover illustration), FRANCIS W. ROBINSON publishes a mosaic recently acquired by the Detroit Institute of Arts. It belonged in a villa at Seleucia Pieria, the ancient port of Antioch-on-the-Orontes, which was discovered by the Antioch Expedition in August, 1937. The portion of the pavement in Detroit represents a personification of the River Tigris (identified by an inscription). The only other complete portion from this pavement, a personification of the River Pyramos, is now in the Smith College Museum. In these mosaics no glass is employed, and the effects are obtained by the use of stone of different colors. A brief history of Antioch, and of the excavations conducted there since 1932 con-

cludes the article. The mosaic shows strong Hellenistic influence, and is dated in the second or third century A.D.

### SCULPTURE

**Pythagorean Symbol in Roman Funerary Art.**—In *BCH.* lxiii, 1939, pp. 43–85, W. LAMEERE discusses the veil held by two daimones over the head of the deceased, a young girl, on a sarcophagus found at Pantano-Borghese near Rome and now in Brussels. The date is in the second half of the third century after Christ. Similar representations are discussed, and a fragment of Castor of Rhodes (Jacoby, *FGH.* 250 F 15) is cited. The conclusion is that the unveiling motif in the Pantano-Borghese sarcophagus symbolizes the freeing of the soul from the body at the moment of death; the daimones represent the action of death which, by freeing the soul, restores it to its original purity. If correct, this motif is undoubtedly Pythagorean, but in Lameere's view, not all sarcophagi with unveiling scenes are to be so explained.

### POTTERY

**Verulamium Pottery.**—In *AJ.* xxi, 1941, pp. 271–298, PHILIP CORDER discusses the products of a local pottery manufactory, dated by coins and other means to 120–160 A.D. Fourteen types are identified, including mortaria with marks: ROA (a trademark, not a signature), and an illegible double stamp. In an appendix is described a remarkable black varnished bowl with stamped decorations that may have originated in or near London in the Hadrian-Antonine period.

### ROMAN BRITAIN

**Roman Tile in Britain.**—The British Museum has acquired a fragment of a tile, found in Yorkshire, stamped with the stamp of the Fourth Cohort of the Gauls (*BMQ.* xiii, 1939, p. 64).

**Romano-British Carving.**—In *BMQ.* xiii, 1939, pp. 34–35, pl. XVa, T. D. KENDRICK publishes a piece of Romano-British carving, found in the neighborhood of Charterhouse-on-Mendip in Somerset, now in the British Museum, and the only example of its kind possessed by that Museum. It represents a head in low relief, of simple and naïve workmanship, yet crisp and refreshing to look upon, of barbaric style, uninfluenced by Rome. Only a few of these carvings have been found, and it is at present impossible to determine their exact date, other than that they belong in the Roman period.

### BYZANTINE

**Monetary Reforms of Anastasius I.**—In *Studies in the History of Culture* (presented to Waldo G. Leland) 1942, pp. 84–98, ROBERT P. BLAKE discusses the economic implications of these reforms, the resultant coinage being considered by Wroth the beginning of Byzantine currency proper. After Marcus Aurelius, Roman gold and silver currency began to deteriorate, until under Gallienus the Empire went into bankruptcy. Under later Emperors, particularly Constantine, a sound gold currency was established, based on the *solidus*, which remained stable till the eleventh century. Many problems regarding the lesser coins in silver and bronze or copper remain unsolved, but it is clear that Constantine made great strides in establishing silver as well as gold on a sound basis. The striking off of bronze currency was a different matter, as it was a local, rather than a state affair, and the writer suspects that overproduction had been intentionally stimulated by the earlier emperors to extricate themselves from financial difficulties, resulting in great depreciation, a number of minor crises, and, in the fourth century, distinct inflationary periods. Some attempt at stabilization was made by Julian the Apostate, but the situation was far from satisfactory when Anastasius I became head of the Eastern Empire in 488. Four years after his accession, in 492, he instituted a fundamental series of reforms, changing the alloy and the flans, issuing different denominations and series, and having the coins marked with the device of the mint of issue. These reforms proved a success and continued with minor deviations till the seventh century. This copper coinage represented small subdivisions of the *solidus* and was under the control of the state, rather than the locality, as attested by the mint marks. The rest of the article is devoted to a consideration of the literary evidence, in order to evaluate the aims of Anastasius in carrying out his reforms and their effect on popular opinion and practice. The economic idea behind the reforms was to stabilize the ratio between gold and copper, and between previously existing copper or bronze coinage and the *solidus*, by the principle of calling the old issues for redemption. The fundamental laws necessary for success were the maintenance of the *solidus* at its standard weight and fineness, the prevention of an overissue of copper coins, and freedom of exchange. These principles held till the sixth century, when a gradual debasement of the

gold coinage set in, which upset the exchange. The effect on the public was not at first altogether beneficial, as the poorer classes, whose money was largely in the earlier copper currency, lost in the redemption of the old coinage by the new, and suffered accordingly.

### MEDIAEVAL

**Glendarragh Circle, Isle of Man.**—In *AJ.* xxii, 1942, pp. 39–53, H. J. FLEURE and MARGARET DUNLAP report on this sub-megalithic circle and its adjoining alignments. Although nothing was found that might be used in fixing the period of construction, it seems that the circle may be regarded as the foundation of a round house. One pair of alignments form a boat-shaped house, of the type known in Scandinavia and Iceland. The latest stage in the development of the site is the rectangular house suggested by the second pair of alignments. A possible date for the round house is about 500 A.D.

### RENAISSANCE

**Pietà by Simon Marmion.**—In *Bull. Fogg Mus.* ix, pp. 114–120 (5 figs.), AGNES MONGAN publishes a silver-point drawing of a Pietà, recently acquired by the Fogg Museum. On the basis of the well-known Crucifixion universally accepted as by Simon Marmion in the John G. Johnson Collection in Philadelphia, and a Pietà in the Lehman Collection in New York, this drawing is attributed with much certainty to his hand. Very little is known about him, except that he was a Flemish artist, who died in Valenciennes in 1489. Before coming to Fogg, this drawing had been in several private collections in England, where it had been published once or twice, but since its acquisition by Fogg, it has been cleaned, with results which make it a far more important work of art than had been previously supposed.

### FAR EAST

**Buddha of Wei Dynasty.**—In *BMQ.* xiii, 1939, pp. 69–70, pl. XXIX, A. D. BRANKSTON publishes a statue of Buddha of hard, dark grey limestone, now in the British Museum, which was almost certainly removed from one of the caves of Lung-Mên, near Loyang. Owing to the nature of the local stone, it is almost impossible to remove a sculpture intact, and this example is put together from eight pieces. It is associated with a rubbing of a niche in which it may well have really belonged. A date in the neighborhood of

522 A.D. (Wei Dynasty) is assigned with a reasonable degree of certainty. Although fragmentary figures from Lung-Mên exist in several museums, this is the first complete specimen to find its way to the British Museum.

**Chinese Head of a Monster.**—A head in the Fogg Museum, that had long been a puzzle to the authorities, is now identified as that of a benevolent daemon, on the basis of similar objects recently acquired by the Nelson Gallery at Kansas City, and the C. T. Loo Collection in New York, coming from Cave IV of the little-known Caves of Hsiang T'ang Shan in the province of Honan. It dates between 550 and 559 A.D., when, for some unexplained reason a strong influence of Gupta art in India appears in China (LAURENCE SICKMAN, in *Bull. Fogg Mus.* viii, pp. 66-70; 3 figs. and cover illustration).

**Khmer Buddhist Head.**—LUCY ROWLAND publishes, in *Bull. Fogg Mus.* ix, pp. 120-127 (4 figs. and cover illustration), a most unusual Cambodian head, acquired by the Fogg Museum from the famous Eumorphopoulos Collection. Unlike most Cambodian sculpture, this head is of wood. It is dated in the Khmer period, i.e., from the ninth to the second half of the thirteenth century of our era, and in the writer's opinion can be dated still more exactly in the period of the construction of the temple of the Bayon at Angkor, in the end of the twelfth century, or perhaps the beginning of the thirteenth. This conclusion is arrived at by a comparison of sculptures from this temple with the head, and also of sculptures known to be earlier, which are more influenced by Indian art forms. The writer believes this head to be Cambodian, rather than Siamese, as had been previously suggested. The subject is Lokešvara, a favorite subject with the Cambodians.

#### U.S.S.R.

**Abkhazia.**—The first traces of ancient man in the marshy, sun-tropical littoral of southern Abkhazia were brought to light in 1935 during the construction of the port at Ochemchiri. Excavations were continued during 1935-36 by L. N. SOLOV'EV at an Eneolithic station near the port of Ochemchiri in Abkhazia (Contributions from the Department of History and Ethnography, Abkhazian Research Institute for Language and History, Georgian branch of U.S.S.R. Academy of Sciences xv, pp. 5-65, Sukhumi, 1939) and M. M. IVASHCHENKO under the joint sponsorship of the Abkhazian Research Institute for Languages and

History and the Commissariat of Education of Georgia. The monuments were largely in the form of flat, round or elongated hills, containing potsherds, ashes, and animal bones, both on the surface and within the hills. Similar monuments in marshy areas of Mingrelia (the Colchian lowlands) have only recently been located. In association with these finds, several potsherds of the Classical black lacquer ware had been found. The geological conditions were those of the second terrace, crests of sandy outcroppings being buried under grey-yellow, clayey soil with underlying blue-grey clays. Two other sites, discovered by Solov'ev in 1934, one at Krasnyĭ Maiak, the other at Ochemchiri, contained corded ware, apparently also belonging to the Koban cultures. The period of sandy deposits corresponds to Koban II (Jessen). It might also be associated with the sub-boreal period (the xerothermic period of the Blitt-Sernander scheme) since remains of *Quercus macranthera* were found near Sukhumi (formerly Sukhum).

According to S. A. Kovalevskii, the dry warm sub-boreal climate prevailed in Azerbaidzhan during the middle of the first millennium B.C. Most recent archaeological investigations in European Russia show that this sub-boreal period corresponds to the Bronze Age. Thus in the Don area A. GOZHEV shows that the sub-boreal period corresponded to the prevalence of the Khvalyn culture. In the basin of the Oka River O. N. Bader found that the driest portion of the xerothermic period coincided with the Fat'ianovo culture, while in the contiguous portion of the Volga basin the same phase corresponded to the Khvalyn period.

The dating for the earlier periods, corresponding to the Eneolithic, has been attempted by I. G. Pidoplichka for the Ukraine. He relegates the Tripolje platforms to the lowest strata of black soil, namely at the end of the Atlantic period and at the beginning of the sub-boreal period. Similar datings have been worked out by Laszlo for Erogye in Hungary, and Schroller for Rumania.

A climatic chronology for northern and central Europe has been determined by B. F. Zemliakov. According to his dating the sub-boreal period (Blitt-Sernander's scheme) falls between 2300-800 B.C. The xerothermic maximum developed between 1500-1000 B.C. The beginning of the sub-Atlantic period begins at approximately 500 B.C. Of the archaeological sites in Abkhazia,

the Classical settlement at Ochemchiri port (400–200 B.C.) belongs to the beginning of the sub-Atlantic period; the settlements at the mouth of Mokva River, at Krasnyĭ Maĭak near Sukhumi, at Ochemchiri harbor, and at the mouth of Madzharka River to the end of the sub-boreal period. The sites at Ochemchiri port and in Sukhumi belong to the end of the Atlantic to the beginning of the sub-boreal period.

While the absolute dating given by Zemliakov is conjectural, the highly increased precipitation observed by Solov'ev for the period of the third to the fourth century B.C. is very close to the date attributed by Zemliakov to the beginning of the sub-Atlantic period. The inventories of the Ochemchiri site yielded little evidence for direct archaeological dating. The pottery possessed traits similar to those from the western dolmens in the Caucasus described by Felitsyn in "Dolmens from western Caucasus," *Materialy po arkheologii Kavkaza* 9, pp. 35–36, 59–60. Both wares were manufactured from clay with an admixture of coarse sand. In both cases the handles were inserted into depressions made in the wall of the vessel and were smoothed over with clay. No wheel-made ware, recorded by Felitsyn in the nearby half of the dolmens, was present at Ochemchiri. The polished vessels of finer workmanship were apparently handmade. The inventories from the dolmens belonged to many cultural complexes down to the Roman period. The dolmens at Kuru Dere, excavated in 1937 by B. A. Kuftin, L. N. Solov'ev, and A. L. Lukin of the Abkhazian Institute (unpublished Ms., Abkhazian Institute) yielded three strata of burials: (1) lowest, belonging to the builders of the dolmens; (2) middle, belonging to Jessen's Stage II (beginning of the Koban culture); (3) upper, intrusive burials of the Hellenistic period. The lowest stratum yielded a hand-made bowl, of dark clay, filled with sand, and a flint arrowhead with two sharp barbs. The delicate pressure-flaking technique was similar to that on arrowheads from Ochemchiri port. Flint arrowheads of this type, both hafted and unhafted, were excavated from dolmens and associated with contemporaneous inhumations in the cemeteries of Kumbulta and Novaiā Rutkha. Beyond the confines of the Caucasus, similar arrowheads are known from the so-called "Īamnaia" ("Burials in fosses") culture of the Don area. Some archaeologists consider this type of arrowhead characteristic of the later stages of the Tripolje culture, especially for the

basins of the Dniester and the Danube. In the Caucasus these forms prevailed for a very long time, and occur even in Iron Age sites.

At Kuru Dere the floor of one of the dolmen burials was sprinkled with fine sea gravel. Since the dolmen was seven kilometers from the sea over difficult roads and no other gravel was present nearby, it is thought that this ceremony indicated a close connection between the builders of the dolmen and the sea. B. A. Kuftin, therefore, suggested that the settlements of the dolmen builders should be looked for near the coast. The pottery of the middle stratum was closely related to that from near the Madzharka River. Combined chisels and whetstones, drilled and polished, occurred frequently in the middle stratum and were also found at a late station on the Mokva. These are also encountered in typical Koban burials. In dolmens of the North Caucasus whetstones and perforated stone discs may also be associated with secondary burials.

Serrated flint sickle blades of the same type as those from Ochemchiri were also found near Nal'chik. Pestles and stone balls are known from many cultures, including the Īamnaia culture of the Don area and Tripolje sites. Implements made from sea pebbles, with notches for attachment to handles, are also known from several sites: from "vaulted tombs" at Sagurano in Georgia; from Kulpino salt mines in Nakhichevan; and from Elenendorf in Azerbaïdzhan. Some of the implements collected by G. Koshkul, E. Bayern, and others were perforated for use as hammers. According to A. A. Jessen and V. M. Gogolashvili, such worked pebbles have been found on hill slopes in the Colchian lowlands. The pottery associated with some of these hill stations may be attributed to the Koban culture. This pebble industry is found frequently in Abkhazian sites, but as yet cannot be used for dating, since it is present over an extremely wide range of cultures, from the Tardenoisian sites of Tsebelda and Kholodnyi down to the Koban period. Typologically they still remain unclassified. While the absence of metal inventories suggests an archaic dating in association with the pebble implements, it must be remembered that metal objects were of great rarity during the period of the dolmens and continued to be rare in the Koban period. Many of the flat pebble whetstones from Ochemchiri suggest indirectly the presence of metal objects. It now appears, however, that the dolmens of the North Caucasus were contemporaneous with the



so-called "Catacomb" culture of the Don area and the Tripolje culture of the Ukraine.

Of particular significance for the dating of the dolmen culture is the total absence of horse remains. In the Tripolje culture the horse appears at the beginning of the second millennium B.C., i.e., during Stage II of Khvoŭko's "Culture A" of Tripolje, as for example at Sushkovka. During the later period of Stage II a great quantity of *Equidae* bones were found at Usatovo and other sites. According to Kruglov and Podgaetskii only a few horse bones (12 per cent of animal bones from Kobiakovo *Gorodishche*) occurred in the "Catacomb" culture, but they became common during the "Log-house" culture at such sites as Zimnitsa. According to Jessen and others the distribution of the horse in the Caucasus has been associated frequently with the spread of the Koban culture. Accordingly, Ochmchiri and the sites of the dolmen culture must be dated prior to the early stages of Kobiakovo *Gorodishche* ("Catacomb" stage), and the later stages of the Tripolje culture, which are attributed to the first half of the second millennium. For example, the following dates have been assigned: for Tomashevka, seventeenth to fifteenth century; for Cucuteni "B," fifteenth century and for Petreny and St. Budy, nineteenth century and later. These dates indicate the minimum range of the dolmen culture; the maximum range cannot be determined so precisely, but the objects from the Kuru Dere dolmens, excavated during 1934 and 1937, seem to indicate the third millennium before our era.

Ochmchiri, which may have been contemporaneous with the earliest dolmens and may have connected with the beginning of the sub-boreal period, did not yield polished or perforated implements. At the same time, definite Tardenoisian traditions, attributed to the middle of the third millennium B.C., were present.

The two basic monuments of the dolmen culture, namely those at Novosvobodinskaiâ and Malkop, have been variously dated: at the beginning of the third millennium B.C. by A. W. Schmidt and M. Rostovtzeff; about 2200 B.C. by M. Ebert; at the end of the third or at the beginning of the second millennium B.C. by A. A. Jessen; from 2000-1700 B.C. by A. M. Tallgren; from 1700-1500 B.C. by B. Farmakovskii; and from the eighth to the seventh century B.C. by Samokovasov and Smirnov.

*Stone Implements.*—The majority of the implements were flaked from pebbles, some re-

touched, others showing signs of use. These belonged to the closing stage of the Stone Age in Abkhazia, when, probably because of the exhaustion of local flint deposits, larger pebbles were collected on the seashore and used for making implements. Many of the pebbles used for implements were of fine, dark grey sandstone. Other materials so used included gabbro, granite, porphyrite and diorite, and metamorphic rocks such as phyllite and, less frequently, gneiss. The form of the tools varied from elongated and narrow flakes to short and broad flakes, struck from the flat surface of a pebble. In all cases the surface of the pebble was visible. Chisels and scrapers can be recognized, and a number of flakes were used without retouching. Broken pebbles with a retouched cutting edge occur, as well as complete pebbles with terminal or lateral notches, probably loom weights or net sinkers. Stone balls may have served as bolas and one circular stone, 8 cm. in diameter, was thought to have been a quern. In addition, there were rubbing stones and one spindle whorl.

*Flint Implements.*—Deposits of grey and pink flint pebbles, from upper cretaceous deposits were found about two kilometres from the site. As a result of the highly weathered character of the flint, the flakes were small and of irregular form. Nuclei were infrequent and non-typical. Discoidal and prismatic nuclei showed signs of pressure flaking. These nuclei had also been used as implements. The elongated forms, especially the flakes, which are so typical for the Upper Palaeolithic and Mesolithic periods, were almost absent. The majority of the flakes, made by pressure flaking, were small and broad. In addition there were present sickles with serrated edges and terminal notches, borers, and pedunculate and concave-based arrowheads. Bone awls, a miniature borer made from an animal tooth, and many perforated scales of plaice, used as beads, were also found.

*Pottery.*—A quantity of potsherds was obtained from the Eneolithic site. The majority of the vessels were of small-based flaring types, averaging 15 to 18 cm. in height with a neck diameter of 14 cm. and a diameter of the base of 8 cm. In addition, there were some deep bowls and cups without handles. These forms have been determined by the restoration of fragmentary vessels.

The two main types of pottery were composed of the following: (a) a local blue, silty clay with an admixture either of fine, micaceous sand or



coarse, granitic sand, containing large flakes of white mica; (b) another type of clay, without a trace of mica, but with an admixture of reddish-brown ortstein and coarse sand. In both types of pottery there were present organic substances and shell fragments. In general, the clay was well mixed and the fracture angular, earthy and rough because of the arenaceous content. The handmade pottery was made, as follows: a flat base was prepared and afterwards the edges were pinched to a height of 1-1.5 cm. The walls were then attached by coils, usually applied from the inside. Handles were inserted into depressions in the walls of the vessels. While drying the vessels were sometimes placed upon coarse fabric spread upon the ground. Before the complete drying of the pottery, it was smoothed both inside and out by means of the hand, pieces of cloth, bunches of grass, or more rarely with a comb. The surface of vessels was often slightly roughened with protruding grains of sand and mica. In a few instances the surface was slightly polished, without much effect, however, because of the presence of sand. The "A" type of pottery is grey or grey-orange in color with an almost invariably ochre-grey fracture with an occasional grey streak in the center. The surface was usually spotted because of uneven firing, which was not sufficiently intensive to bake the clay. Sherds of "B" type pottery, which were also only partially fired, were either black or possessed a thin, often sharply-defined reddish stratum near the outer edge of the fracture.

The ornamentation, although rare, included the following: (a) convex coils with notches, surrounding the vessel below the rim in one or two rows; (b) slanting notches below the edge and on the walls of vessels, in one or two rows, or forming some other type of pattern; (c) cross-hatched triangles forming a pattern on walls of vessels (composition of design could not be determined); (d) ornament formed by series of overlapping rolls forming the edge of the vessel, crossed by broad vertical lines, forming vertical strips of steps.

A few fragments (4 per cent of total sherds) of an entirely different type, possibly wheel-made, including small pots, cups, and pitchers, were found. These were made of much finer clay, with an admixture of fine sand. The walls were very thick (2.5-4 mm.). The ware was well-fired, black inside and out, and polished. The fracture was grey in the center, with thin brown-red layers on both sides. These vessels were often ornamented by a scratched linear design, usually in the form

of hatched triangles or a zigzag line. A few specimens of this polished ware were similar to "A" and "B" types, but they were better in shape and without an admixture of coarse sand. These were dark inside and out and badly polished, usually only on the outside.

*Dating.*—The Eneolithic site at Ochenchiri belongs to the end of the stage of formation of the blue clay. Similar finds in the blue clay, at a depth of 4 m. below the surface, were made during 1937 by G. M. Vasilchenko in Sukhumi. At another site a later stage of pottery development, associated with similar implements made from sea pebbles, was discovered in 1936 by E. V. Shantsev and V. I. Gromov near the Madzharka River. This pottery was closely related to that of the early Koban burials (Jessen's Stage II). The strata of wavy sands indicated aeolian origin and deposition during the third climatic stage. A still later stage was represented by the site discovered by Solov'ev in 1935 at the mouth of the Mokva River. The pottery, while preserving some of the traditions of the Ochenchiri station, consisted mainly of forms known from urn burials of the Koban period. The Eneolithic site near Ochenchiri is connected with a group of three tumuli on the left bank of the Dzhukumur River near its mouth. These tumuli, which were situated on the second terrace above the river and 2.5-3 m. above sea level, averaged one kilometre in width. The terrace is formed of a thick stratum of clayey soil lying on top of firm blue-grey sandy soil. A group of three large tumuli was situated in the corner formed by the sea and the river. The tumuli formed a chain running west to east, parallel to the shore. The westernmost barrow (75 x 45 x 7.5 m.) was located 200 m. from the seashore and is surrounded by a terrace (5-12 m. wide and 1.50-2 m. high), shored by a low stone wall (1.10-1.20 m. thick) surrounding the hill. The flat top of the hill had been under cultivation, and piles of boulders, collected by the farmers, contained many potsherds, largely of the Feudal period. The central tumulus (100 x 90 x 7 m.) was almost round, but had been partly levelled during building activities, when flat bricks of the Feudal period were discovered together with some fragments of black lacquered Classical ware. The easternmost hill (90 x 50 x 5 m.) was also surrounded by a terrace, shored by a wall composed of boulders bound together with mortar. The flat surface of the hill revealed foundations of walls and buildings of the Feudal period.

The Eneolithic site was discovered immediately north of the western tumulus. A series of trenches dug by IVASHCHENKO revealed the presence of three cultural strata: Feudal (0.20–0.25 m.); Classical (0.35–0.40 m.); Eneolithic (0.45 m.). No account has yet been given of the two upper strata.

**Georgia.**—The State Museum of Georgia, Tbilisi, contains a rich collection of Urartian monuments, including twenty-two inscriptions, a fragmentary statue of a Urartian divinity or king (?Argishti I), and a millstone. Three monuments belong to the epoch of Ishpuin, son of Sardur (about 817 B.C.); and fourteen to the epoch of Menua, son of Ishpuin (about 810–785 B.C.).

The following kings are each represented by one inscription: Argishti I (about 780 B.C.); Sarduri, son of Argishti (about 760/765–733 B.C.); and Rusa I, son of Sardur (733–714 B.C.). Eight of these inscriptions belong to architectural monuments; some concern military campaigns and the resultant conquests, and a few others deal with dedicatory monuments. The publication, edited by GEORGE TSERETHELI (Urartian Monuments in the Georgian Museum, The Georgian Branch of the Academy of Sciences of the U.S.S.R., 1939, Tbilisi, in Georgian and Russian with English summary), contains translations of the texts and excellent plates.

## NEWS ITEMS FROM ROME

The present year will long be remembered among devotees of Roman antiquity for the commemoration of the Bimillennium of the Birth of Livy. The official ceremonies have been worthy of the occasion, and the tribute to the memory of the great Paduan which the year has evoked on the part of individual scholars of all nations, in the form of a renewed, systematic and intense reading of the surviving portions of his colossal work, has served to bring out in higher relief and in stronger colors the merits of his interpretation of Roman character; among the codifiers of the Roman heritage, he occupies with distinction a foremost place.

The next bimillennium under consideration is that of Lucretius: the two thousandth anniversary not of his birth, but of his death. Many will view with peculiar interest the response of the present age to the challenge. The appeal exercised by the commemorations of Virgil, Horace and Livy was assured of a ready response in wide circles; but will our contemporary civilization stand the test which will be set by the contemplation of the passing of that sensitive and austere spirit who, in the footsteps of his Athenian guide and master, felt the urge, in Virgil's phrase, to *rerum cognoscere causas*, and could not rest until he had made the attempt to set down in lofty and closely-wrought hexameters the results of the lonely quest? The opportunity would appear propitious for a commemorative edition of the *De Rerum Natura*, a suitable companion to Giarratano's Livy which has begun to appear under high auspices. Will archaeology, too, bring its contribution? Already Commendatore Della Corte has most ingeniously proposed an interpretation in Lucretian terms of the sadly mutilated paintings in the "elephant room" of the house of the Homeric cryptoporticus at Pompeii, a residence which he is disposed to bring into direct personal relation with the poet.

In Rome itself, attention has again been directed towards the Campus Martius by fresh study of the monumental arches—of Claudius and of Antoninus Pius—which formed a conspicuous feature of that region; and towards the Capitoline Hill, by the excavations on its southern slopes, which have revealed not only a further stretch of the Clivus Capitolinus, but several

remains of aqueducts, reservoirs and other hydraulic installations. This has again raised the question, "How was water brought to the Capitoline?"—i.e., did the Aqua Marcia and the Aqua Tepula cross the depression between the outskirts of the Quirinal and those of the Capitoline upon arches, or by means of a subterranean channel on the level, or by means of an inverted syphon or syphons? The first hypothesis probably, and the second certainly, presupposes the presence of a saddle or ridge connecting the two hills in question, but the view that such a ridge actually existed down to the principate of Trajan is no longer held by responsible scientists. In view of the failure of previous investigators to reach definite and generally satisfying results on the "vexed question" of the aqueducts, it has been a source of gratification to find that my own solution (*Rendiconti Accad. Pontif. di Archeologia*, 1942) is considered acceptable by learned colleagues. I ventured to suggest that the *fistulae* which, in accounts of the beleaguering of Saturninus upon the Capitoline Hill in the year 100 B.C., are described as having been cut by Marius (Orosius, *Hist. adv. pag.* v, 17, 7; Florus, ii, 4 (iii, 16); *De viris illustr.* 73, 10; and especially Cicero, *Pro C. Rabirio perduellionis reo* 31), belonged to a syphon or syphons, in accordance with the practice of the Roman hydraulic engineers and the usage of their technical writers, and in particular with the wording of the well-known inscription of Aletrium (*ILS.* 5348), a document not far removed in date from the time of construction of the two aqueducts in question, 144 and 125 B.C. respectively.

The archaeological services have very skilfully availed themselves of an exceptional opportunity for the execution of two series of detailed photographs of the Trajanic and Antonine columns respectively. It is no exaggeration to say that these two impressive monuments, so awkward to contemplate in detail on the spot, are now for the first time adequately available for study, and their qualities fully revealed for historical, antiquarian and aesthetic interpretation. Professor Pietro Romanelli contributes two felicitous pages of introduction to *La Colonna Antonina, rilievi fotografici eseguiti in occasione dei lavori di protezione antiaerea*, Casa Editrice Carlo Colombo,

and a companion volume devoted to the Trajanic column is in preparation.

Excavations connected with building operations in the Capital continue to yield unforeseen results of an archaeological nature. In the new northerly quarters of the city, beside the Via Po, at its juncture with the Via Allegri, a well-preserved fabric in brick work has been uncovered, still retaining in places the marble veneering of its exterior, and in its interior revealing a stucco surface in part perfectly preserved. Whether it was a tomb or some other type of structure is not clear; in any case it appears to have stood in the middle of the grounds of an ancient villa.

Other recent items include the discovery of further details of the Forum of Nerva, and of various structures in the zones near the Circus Flaminius and the Theater of Marcellus (see below); while for history and epigraphy, special importance attaches to the systematization of the fragments of the *Fasti Capitolini*, which is stated to have already yielded unexpected and valuable results. The Capitoline collections can also record a number of acquisitions of works of artistic merit and antiquarian interest, especially sarcophagi and the heads of statues, which have been found at various points in the subsoil of the city and its far-reaching new suburbs, especially in the deep-level excavations for the underground railway which is still under construction and in the laying out of arterial roads to the country.

For the preparation of these reports, the helpfulness and generosity of the head of the archaeological services of the city of Rome, Dr. A. M. Colini, have never failed us, and on this occasion he has communicated a series of proof-sheets of the forthcoming volume of the *Bollettino Comunale*. As is well known, and was mentioned in a former report, this long-familiar journal is now the organ not only of those archaeological services but of the Museum of the Roman Empire, and under Dr. Colini's editorship it occupies a focal position in its own most important field. It publishes not only articles of various lengths, but a *notiziario* competently prepared with the co-operation of specialists. Space and time fail for an adequate résumé of the new volume, and in normal years its excerpting would fall to another department of *AJA.*, but in present conditions the following brief account may be offered and may prove helpful:

Dr. Colini publishes, and Dr. M. Pallottino discusses, a portion of a bucchero vase which was

found at the foot of the Capitoline Hill, beside the Clivus Capitolinus. It is of a fabric dated in the sixth century B.C., and bears, incised in characters of that period, the inscription:

*nīarazīalaraniia*

—a group of substantives: whether Etruscan, Faliscan, Latin, or of some other linguistic affinity, the evidence seems hardly sufficient to decide with certainty. Pallottino inclines in favor of Etruscan, at least of Etruscan influence, and in case this view is justified, he rightly emphasizes the unique importance of the fragment as testifying to conditions in Rome in the kingly period.

Dr. C. Pietrangeli publishes the new fragments of the bronze *S. C. de Asclepiade*: see last year's report.

In a long and richly documented article, Dr. Colini treats of "*Pozzi e Cisterne*": the wells, upon which (Frontinus, *Aqq.* 4) the early Romans so largely depended for their drinking-water, and the reservoirs, which were already known at an early period, but which became more frequent in later times, serving for the storage of rain-water. Scores of the former have been found in and near the valley of the Forum (Boni, in 1913, counted seventy), and several on the neighboring slopes of the Quirinal. They were seldom found empty, and their archaeological contents are often of considerable significance.

From among the rich contents of the *Notiziario*, announcing discoveries in and about Rome, space permits the mention of only the following:

During the process of lowering the level of the Viale Ardeatino along the line of the Aurelian Wall, a number of interesting finds have been made: a chamber tomb has been uncovered, dated probably towards the close of the second century of our era, with frescoes (Dionysus and Ariadne, Amor and Psyche) and a polychrome floor mosaic (a family of peacocks); a tomb of the republican period, rectangular in plan, faced with cut-stone work of tufa and peperino; a dwelling containing a hoard of twenty coins (folles) of Justinian; a few inscriptions, mostly sepulchral.

The elaborate substructions of the Colosseum have been cleared and in part restored.

Some details are now available regarding discoveries at a low level beneath and about the Hadrianic temple of Venus and Roma and the Basilica of Maxentius: a "palace" of the last period of the Republic, and probably the Horrea Piperataria mentioned in the documents.

On the Pincio, digging in preparation for the

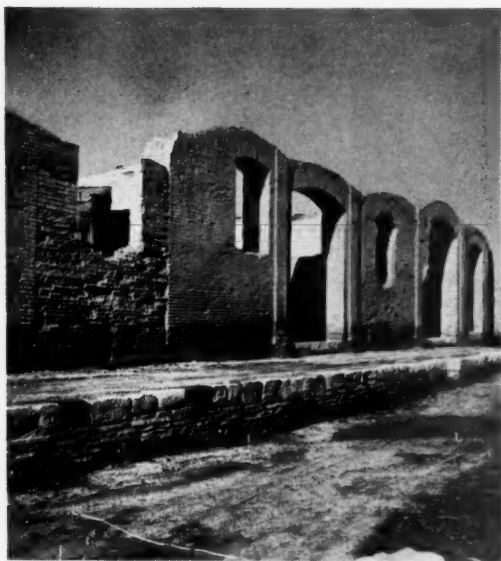


FIG. 1.—OSTIA: HOUSE OF THE MUSES, FAÇADE  
(Courtesy of Commendatore Calza)



FIG. 2.—HOUSE OF THE MUSES, CORRIDOR ABOUT  
CENTRAL COURT  
(Courtesy of Commendatore Calza)



FIG. 3.—OSTIA: HOUSE STRUCK BY LIGHTNING, NEAR THE PORTA MARINA  
(Courtesy of Commendatore Calza)



extension of the Albergo Excelsior has led to the discovery of massive walls, faced in tufa reticulate, four Roman feet thick and visible down to a considerable depth; they are dated in the first century B.C. and attributed to a villa. This is the *Collis Hortulorum* (Suetonius, *Nero*, 50).

A somewhat fuller preliminary statement is given as to the discoveries on the eastern slopes of the Capitoline Hill, the region of the Clivus Capitolinus and the Vicus Iugarius.

Further developments in the space between the temple of Apollo Sosianus and the theater of Marcellus have revealed: (1) a circular foundation, 5.20 m. in diameter, in front of the temple of Apollo and on axis with it, probably belonging to the great altar; (2) a concrete foundation, incorporating travertine blocks, parallel to the front of the temple; (3) remains of a structure of cut stone of "Grotta Oscura," extending to the sides also; (4) at a lower level, the nucleus of the podium of the temple, in its earliest recognizable phase, in *cappellaccio* blocks faced with smaller blocks of a more durable quality of tufa. Further investigation of these important remains is required, and is contemplated when conditions permit.

A large block from a frieze, representing two Victories sacrificing bulls, addorsed, and separated by a filleted candelabrum—essentially a Trajanic motive—is now assigned to the *porticus Pompeii*, apparently as restored early in the second century. The art is somewhat more advanced than that of Trajan's Forum.

The area of the Circus Maximus has been explored by means of a series of sixteen test shafts, which have yielded precise data for a survey. These are soon to appear in the same *Bollettino*.

The items from suburban territory hardly fall short of those from the city in interest, but of these we can mention only the investigation of a great cylindrical mausoleum on the left of the Via Praenestina, over a kilometer outside Porta Maggiore, known as "il Torrione." Its characteristic stone work of tufa, peperino and travertine dates it at the close of the Republic or the beginning of the Empire. The collapse of a portion of its structure enabled the archaeological personnel to investigate the filling of the exterior ring and of the conical tumulus, which proved to contain instructive fragments of ceramics, bone, etc.

In last year's report, especial prominence was assumed by Ostia, and in particular by the developments on the seaward side of that maritime and commercial community. It is now possible,

thanks to the great kindness of the Superintendent of those excavations, Commendatore Guido Calza, to add some details to the picture then presented, and to carry the narrative further. The excavations have continued in the region nearest to the sea, and along the streets parallel and perpendicular to the furthest stretch of the "*Decumanus Maximus*." The numerous residences which have been found include some which are perfectly preserved and are also important as types of architecture. One of them has a ground-floor apartment consisting of a vestibule at the entrance and six rooms—each lit by two windows—which have preserved the original frescoes on their walls, as well as all their mosaics with their geometrical decoration. The majority of the paintings in this house belong to the Second Pompeian Style, in the opinion of the excavators, but the special marvel of the apartment consists in the perfect preservation of a vault which—starting from a central circle with the winged Pegasus—is completely covered with triangles containing figures of animals, Cupids fishing, etc.

The typologically important and aesthetically significant "House of the Muses" was described a year ago. It is now possible to supplement that description by a view of the façade (fig. 1) and one of the corridor which runs about the central court (fig. 2).

Another remarkable house shows the "Pompeian" type with interior peristyle (fig. 3) containing two couches for banquets, their sides adorned with colored mosaics. Between them is a *lararium*, and in front of this a marble altar, decorated with leafy festoons. But the great feature of interest in the house consists of the presence in the peristyle of a *bidental*, which at once takes rank as a companion to the Pompeian example described in these pages a year ago. It is the record of a *fulgur conditum*, and consists of a masonry structure resembling a small trunk in shape and bearing on its top surface the inscription F. D. C. (*fulgur divum conditum*).

The entire zone about the "Porta Marina" of the Sullan wall has now been excavated and systematized. The sanctuary of the Bona Dea was found a short distance outside that gate, and is identified by the inscription *M. Maecilius M. f. —VRR (=Turranius?) aedem Bonae Deae ex sua [pecunia] — idemq(ue) probavit*. The sanctuary (fig. 4) is focused about a tetrastyle temple: of the columns of this edifice, only the bases are preserved, but they were surely of tufa cov-



FIG. 4.—OSTIA: SANCTUARY OF THE BONA DEA  
(Courtesy of Commendatore Calza)

ered with stucco. The area in which the temple stands is surrounded by a colonnade of brickwork. The sanctuary contains also various rooms destined for the cult and perhaps for the *apotheca* of the priestesses. Thus it well illustrates or complements the evidence of the literary sources regarding the worship of the Bona Dea, a divinity revered exclusively by women, with a cult secluded from the gaze of the general public. For this purpose, the sanctuary was surrounded by a high wall on its street frontages, and was open only on the northeast. Two building periods are clear: the original construction dates from the age of Augustus, but in the third century the sanctuary was reduced to half its size through the suppression of the court and colonnade, the areas of which were cut off from the temple and assigned to commercial uses. This suggests a decline in the importance of the cult of this divinity, the presence of which at Ostia had hitherto not been attested.

It is in this same sanctuary that a new and

important fragment of the well-known *Fasti* of Ostia has come to light, referable to the years 14 and 15 of the present era. For A.D. 15 it supplies only the names of the consuls; but for the preceding year it records the third census of the Roman people executed by Augustus, on this occasion assisted by Tiberius, as well as the death of the former ruler: [*Augustus I*]II, *Ti. Caesar cens(um) [egerun]t. c(ensa) s(unt) c(ivium) R(omanorum) k(apitum) (quadragies semel centena milia nongenti) — XIV k. Sept. Augustus excessit.* The date for the death of Augustus—set down without mention of his funeral ceremonies and divine honors—is that given in Suetonius, *Aug.* 100, 1, but the census figure differs considerably from that transmitted in the *Res Gestae*, 8, 4: 4,937,000, surely an official and correct figure. The divergence between the two documents may have been due to a limitation of the number, in the case of the stone from Ostia, to Roman citizens actually residing in Italy. Perhaps this was specified in the portions of the inscriptions now missing.

It is now possible to present (fig. 5) an adequate illustration of the female portrait statue from the headquarters of the Augustales (see last year's report). It is a Trajanic adaptation of the type known as "Venus Genetrix" to the portraiture of one of the ladies of the imperial house, probably Sabina. It was found in the central niche of the edifice, together with six other works of official sculpture (to be published in NS. 1941, fasc. 7 ff.), including a head (fig. 6) from a colossal statue: a late third-century emperor, represented *capite velato*, as Pontifex Maximus, perhaps either Aurelian or Diocletian.

Fig. 7 shows still another of the many significant works of sculpture which have been yielded by the soil of Ostia: a circular altar of Greek marble, bearing the inscription ΔΩΔΕΚΑ ΘΕΩΝ. It was found in the sanctuary of Attis, in the *campus* of the Magna Mater, and is to be published by Dr. Becatti in the *Annuario* of the R. Scuola Italiana di Atene for 1941. The form of the inscription, and the technique, assign the execution of the altar to the Augustan epoch. The product of a "Neo-Attic" fabric, it reproduces the seated figure of Zeus in the eastern pediment of the Parthenon, which is attested by several other "Neo-Attic" reliefs, surrounded by the other great Olympians, who are represented in the style of Praxiteles—the sculptor, it should be remembered, of a group of the Twelve Gods which was shown to visitors to Megara in the second century after Christ (Paus. i, 40, 3). For the Father of Gods and Men, the Pheidias interpretation had become canonical.

Etruria must not remain unrepresented here, although a general reference to the notices in successive volumes of *Studi Etruschi* for the future guidance of scholars in that alluring field, may prove eventually of greater service. Readers of George Dennis' *Cities and Cemeteries of Etruria* will remember his description of the antiquities visible in his day at Toscanella, now renamed Tuscania, a picturesque little place lying midway between Viterbo and Corneto (now Tarquinia), more famous today for its Romanesque churches than for its Etruscan remains. In particular they will recall his account of the Campanari family, those local enthusiasts who, in that happy time, were able to combine an enlightened interest in their cultural heritage with an insatiable thirst for excavation and the collection of antiquities. During the century which had elapsed since the hey-day of such pursuits, the Campanari patri-

mony had passed through various phases. Some of the best pieces had found their way to the British Museum, the Vatican and elsewhere, but until the year 1940 there was a by no means negligible residue still in the possession of the descendants and heirs. This residue eventually consisted chiefly of some fourteen or more late sarcophagi, datable on various grounds, partly the headdresses of the women, partly the evidence of coins which were found together with them, down into the reign of Tiberius. Half of the sarcophagi were of the local stone known as *nenfro*, the other half of terracotta. There were also a few fragments of sculpture and some inscribed gravestones and other objects. The interest of the collection even in its latter days was considerable, and its dispersal would have been a distinct loss to science.

In the above-mentioned year, these half-forgotten remains were acquired by the Italian State, and thus the threatened dispersal has been averted. They have now been taken to the Etruscan Museum in the Palazzo Vitelleschi at Tarquinia. This museum has received several noteworthy accessions during recent years, and the noble palace in which it is installed, a gem of Italian Renaissance architecture, has been thoroughly and capably restored. Its collections are rapidly assuming a position of importance for the study of the coastal district of Etruria, fully comparable with that held by the Museums of Perugia and Chiusi in their own respective territories; for Etruria as a whole, Florence and Rome naturally still claim precedence.

In a former report, mention was made of the fundamental work of Dr. Arvid Andréén, "Architectural Terracottas from Etrusco-Italic Temples" (Vol. VI, 1940, of the *Skrifter* of the Swedish Institute in Rome). The repertory of the Hellenistic phase of this important class of material has recently received an important addition from an entirely unanticipated source—a wall in the grounds of the Villa Medici in Rome—owing to the keen observation of Dr. Andréén himself. It is an admirably executed terracotta figure, about half a meter in height, attached to a background which implies that it was intended for an architectural setting. Stylistic considerations suggest a dating between 250 and 150 B.C. A youthful male figure (Hermes?) is represented, nude except for the cloak hanging from his shoulder. He is turned slightly away from the spectator. There are considerable remains of the colors which, as was



FIG. 5.—OSTIA: PORTRAIT-STATUE OF AN EMPRESS FROM THE  
EDIFICE OF THE AUGUSTALES  
(Courtesy of Commendatore Calza)



FIG. 6.—HEAD OF AN EMPEROR OF THE THIRD CENTURY A.D.  
(Courtesy of Commendatore Calza)



FIG. 7.—OSTIA: ALTAR OF THE TWELVE GODS  
(Courtesy of Commendatore Calza)



usual with these terracottas, were applied to the surface before baking. Dr. Andrén's publication of this work, in a forthcoming number of the same series as his great *Corpus*, will ensure for it a position of prominence among the products of mature Hellenistic sculpture.

An item in the daily press serves as a reminder of the steady progress of that vast undertaking, the excavation of Herculaneum, and of the nature of the finds which that unique site may be expected to disclose. In the region below the ancient city, towards the coast-line, whither it had been swept down by the impetuous rush of the flood of volcanic mud, a silvered bronze herm of Hercules has come to light, which is stated to show good Hellenistic workmanship, and surely to have belonged among the accessories of one of the aristocratic mansions of the city.

As regards the interpretation of the buried Campanian cities, the event not only of the year, but of the decade, has been the appearance of His Excellency Professor Amedeo Maiuri's volume, *L'Ultima Fase Edilizia di Pompei* (Istituto di Studi Romani, Sezione Campana: Italia Romana: Campania Romana, II: on commission with the Libreria Cremonese, Rome, lire 60: 226 pages, 14 text illustrations, 66 plates). It is in fact less a "news item" than a publication for review, but it demands attention in these pages nevertheless. In two respects the tendencies embodied in this volume stand somewhat by themselves in recent archaeological literature—they run counter to contemporary trends. And they are all the more acceptable and stimulating on that account. (1) The Author's purpose is to identify and define, not the earliest, but the latest remains: the restorations and the fresh constructions which were executed in the period between the great earthquake of the year 62 (or as he still writes, 63) after Christ and the catastrophe of 79; and in doing this, (2) he sweeps aside a certain excessive subtlety of interpretation which had developed among investigators, and he ends by placing the whole question upon a more solid basis of common sense. Maiuri first demonstrates the extent and nature of the devastation caused by the earthquake, then, the characteristics of the post-earthquake reconstructions; then he is able to apply his criteria to the complete fabrics of other buildings which, in their light, are demonstrably to be dated after the earthquake. He rightly insists on the paramount importance of the investigation of foundations and other remains

in the subsoil, and he recognizes more clearly than others had done that the wide and diversified range of materials employed in both the restorations and the fresh constructions was due to the necessity for employing second-hand material—the refuse from damaged structures—which lay ready to hand, at the disposal of the contractors. For example, the precinct walls of the temple of Vespasian, which not only materials, but technique and style had led previous investigators to assign to the Augustan or even the Sullan age, in reality are to be dated in the period after the earthquake. Maiuri's pages are full of that "human interest" which he has already on so many occasions read into the monuments of his beloved Campania. He feels the staggering difficulties with which both the local administration and the individual members of the community were burdened, and he sympathizes with their efforts in a spirit of comprehension resulting from his own long and patient labors.

The course of the investigation leads to a sharper definition of the styles of architecture and decoration prevalent in the last phase of Pompeii—in particular, all the painted decorations of the House of the Vettii, with the exception of those in the two *alae*, are now to be assigned to the period after the earthquake.

One striking conclusion is, that the effects of that cataclysm were so severe as practically to cripple the local administration for the space of years; that at the time of the final catastrophe, notwithstanding the 16 or 17 years that had elapsed in the meanwhile, even the city water-supply was still upon an emergency basis, and the only public edifices which had been sufficiently reconstructed to resume their functions in a normal way were the amphitheater, the baths near the Forum, and the temple of Isis (this latter, a private benefaction), but that the urgent and pressing demands of industry, commerce, and housing had taken first claim, and their financial burden had been borne not by government agencies, but by the individuals directly concerned. If the state and municipal organism was so severely crippled, this throws a light, to some extent, upon general conditions in Italy during the latest years of Nero's principate—when the tragic situation in the Capital, resulting from the fire of A.D. 64, was in itself enough to absorb all the efforts of the State—and also in the time of anarchy and readjustment that followed the collapse of that visionary and irresponsible ruler.

The reconstructive activities also of Vespasian's administration and of its local representative, the tribune T. Suedius Clemens, are appraised on the basis of the slight evidence available: it was a question, Maiuri concludes, of reconstituting the official records of the properties belonging to the community, and of reclaiming such properties on the basis of the record.

It is probably in the application of its well motivated and clearly formulated criteria to the interpretation of specific public buildings that this admirable book will find less ready acceptance: its contents, however, are all the more suggestive on that account. For example, the proposal to identify the central "Municipal Office" at the southern end of the Forum as the Hall of Records—*tabularium*—of the colony (p. 37) is so brilliant as to appear, at first sight, convincing, but upon second, or third, thought, difficulties obtrude which caution reserve. Two practically duplicate painted announcements of an exhibition of athletes etc., with a wild-beast hunt, dating from the last years of the life of the place (*CIL* iv, 1177 and *NS*. 1914, p. 106, no. 2; cf. Della Corte, *Case e Abitanti a Pompei* iii, p. 112 = *Rivista Indo-Greco-Ital.* iii, 1919, p. 112)—the gaps in the one of them to be supplied from the other—testify to the inauguration of an *opus tabularum*, but the parallel cases adduced in the article *opus* in the standard *Real-Encyclopädie* suggest that the phrase is not equivalent to *tabularium*, but is a periphrasis for *tabulae*. Given the context, it appears permissible to cite Cicero, *Pro Sestio* 126; *Ad Fam.* vii, 1; Vitruvius v, 5, 7; vi, 2, 2; and Plutarch, *Pomp.* 52, and to understand an inauguration of the great theater as partially restored with fresh woodwork on and about the stage; this accords, I believe, with Maiuri's account of the state of the theater at the time of the earthquake of A.D. 79. Moreover, such an interpretation would allow one to take the *dedicatio*, in accordance with its normal sense, as referring to a completed building, whereas one of the most valuable results of Maiuri's study of the "Municipal Offices" has been to show that their reconstruction had not reached the final stage when the city was buried in the year 79.

The extremely successful excavations at the mouth of the river Silaris, near Paestum, are already familiar to readers of the *AJA*, through the generosity of the excavators in supplying material for publication in previous volumes. The

extraordinary quantity of reliefs and of architectural material which came to light during the campaign extending from November 1939 to May 1940 (21 archaic metopes, including 3 from the great temple; of these, 12 with their respective triglyphs, and also 3 triglyphs which were executed separately; in addition, 35 blocks of the cornice) led the excavators to suspend all further search during the year 1941, in order to devote themselves to the restoration and study of these inestimably precious pieces. This was all the more necessary as in the case of several of the metopes, the sandstone of which they were composed was found to be in a state of great deterioration and friability. These have been subjected, after careful experiments upon specimens of the same variety of stone, to baths of silicate, with a view to their consolidation. As the result of much patient labor, it has now proved possible to reconstruct almost in its entirety the metope-frieze which adorned the four sides of the archaic *thesauros*. This was composed of 36 metopes, of which 34 have been found either whole or in fragments. Some of these were never finished, i.e., they have their relief surface flat, so that the sculpture is reduced to the mere outline of the figures standing out against the background, and the essential details rendered by means of a succession of planes in depth.

But this was only a beginning in the understanding of this edifice. The study of the reliefs after restoration has enabled the excavators to reconstruct a large part of the mythical cycles of the scenes in which the reliefs were grouped. On the front of the building the scene of the centauromachy on Mt. Pholoe appeared in six metopes. To the left, the centaur Pholos, who by reason of his gentle nature was represented with his foreparts entirely human, stretches forth his hands in an effort to put an end to the strife which had broken out between his embarrassing guest and the centaurs—these latter are given the foreparts of horses. Herakles has been attracted by the intoxicating fumes of the wine; he bends forward, in the attitude familiar to archaic vase-painting, and he shoots his arrows at the monsters, two of whom have already fallen wounded or dying, while two others come galloping up.

On the sides of the building, there follow the more famous exploits of the hero: the struggle with the centaur Nessos for the release of Deianeira; those with the giant Antaios and with the Nemean lion; the contest with Apollo for the

Delphic tripod; the hero's capture of the boar of Erymanthos, which he is carrying to the terrified Eurystheus; and finally, the scene with the two Kerkopes, whom he holds hung from a pole like wild fowl (figs. 8, 9).

Four metopes are devoted to scenes from the Oresteia. These acquire truly exceptional importance not only for the history of figurative art, but for that of archaic Greek literature as well. In the first metope, Orestes is urged on by Elektra to the crime which is to appease the shade of Agamemnon and to restore the youthful prince to his father's throne. In the next scene—consisting

Tityos; the latter has fallen to his knees, but still holds in his embrace Leto, whom he has attempted to ravish.

Two further reliefs have to do with the myth of Phineus: he is seated, while a Harpy escapes with his food. One well-preserved metope, with two women fleeing to the right, is perhaps to be combined with another metope, still awaiting restoration, with two male figures, likewise running towards the right: the rape of the daughters of Leukippos? A half-metope with a cauldron containing a bearded figure perhaps depicts the tragic end of Pelias, and it is to the rape of Eu-



FIG. 8.—METOPES FROM THE HERAION, LUCANIA  
(Courtesy of Drs. U. Zanotti-Bianco and Zancani-Montuoro)

of two metopes—Klytemnestra lifts the murderous double axe against her son. She is held in check by the aged nurse Laodameia, while Orestes overtakes and slays Aigisthos upon the steps of the palace of the Atreidai. In the last scene Orestes, sword in hand, is struggling with the Erinnys, who, in serpent form, is enveloping him in her coils.

Several other reliefs are to be assigned to the Trojan cycle: Achilles, lurking behind a palm-tree, awaits the coming of Troilos to water his steeds at the fountain; Patroklos is wounded by Hektor while he is striving in vain to hold back the chariot which Apollo has loosed and carried off; Hecuba and Andromache, with the little Astyanax in her arms, lament, tearing their hair, for the death of Hektor. Perhaps it is to this same cycle that a fragment is to be attributed with the head of another woman who is tearing her hair; this probably formed part of the *prothesis* of Achilles.

In another scene extending over two metopes, the sons of Leto are represented: with their bows drawn they let fly their arrows against the giant

rope that a fragment is to be referred with the forequarters of a bull, and a human foot resting upon them. Finally, the interpretation of a relief with two figures fleeing with sacrificial implements in their hands still remains in doubt.

It will be clear from the above list that this is the richest single repertory of myths—apart from the compendious writers—which antiquity has transmitted to our day. As already intimated, the technical labors of the two fortunate and able discoverers are being accompanied by their preparation of the definitive publication of this vast monumental repertory, the appearance of which will be awaited with the keenest of interest.

The final item here to be recorded lies on the borderline between archaeology and philology, as likewise on that between Antiquity and the Middle Ages. At the April meeting of the Pontifical Roman Academy of Archaeology, Dom Mauro Inguauez presented a terse and learned communication regarding "Notices of the autograph manuscript of the Rule of St. Benedict." He was able to show, from contemporary references, that this precious document, which itself has long

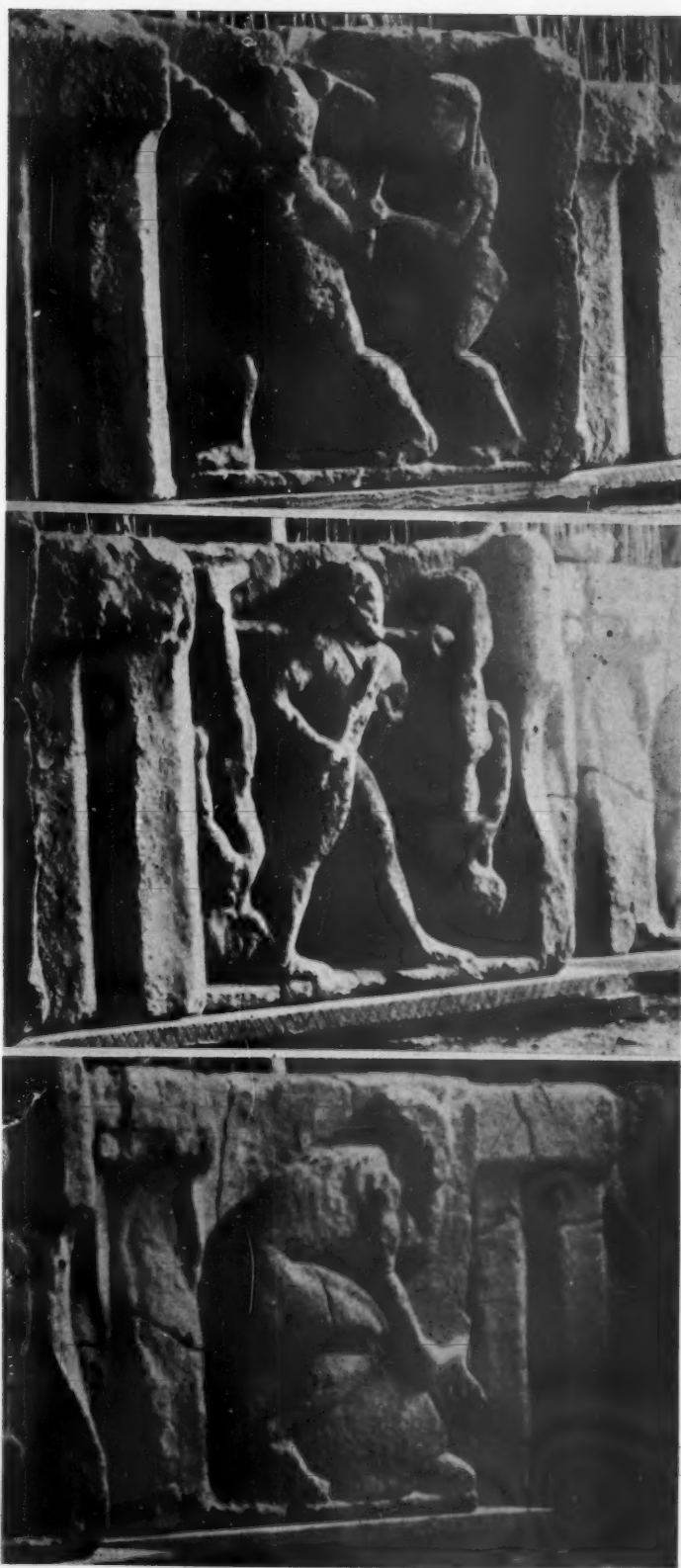


FIG. 9.—ENLARGEMENT OF METOPES IN FIG. 8

been lost, but the consideration of which, ever since the appearance in the year 1898 of Ludwig Traube's "classic treatise" (*Textgeschichte der Regula S. Benedicti*: second edition by H. Plenkers, Munich Acad. *Abhandlungen* xxv, Abh. 2, 1910; cf. Lowe, *Regula S. Benedicti*, Oxford, 1929), has occupied a unique position in Benedictine studies, was in fact still in existence at Monte Cassino well down into the later Middle Ages. When this communication has been published in the *Rendiconti* of the Pontifical Academy, it will be sure to command the respectful consideration of all workers in its important field.

It remains to express our sincere gratitude to the administrators and scholars whose ready response to our request for information and material

has made the preparation of these pages possible: Drs. Calza, Colini, Zancani Montuoro and Zannotti Bianco, as well as to His Excellency Professor Roberto Paribeni, whose unfailing interest in our efforts to maintain the cultural traditions of the American Academy in Rome has extended to the present attempt to inform the American scholarly public of the importance attaching to current finds in Italy and of the fine quality of the work which is being accomplished here at a time of exceptional difficulty: discoveries and activities which possess a constructive value for the future.

A. W. VAN BUREN

AMERICAN ACADEMY IN ROME  
Rome, May 10, 1942



## BOOK REVIEWS

**MATERIALS USED AT THE EMBALMING OF KING TUT-ANKH-AMUN**, Metropolitan Museum of Art, Papers 10, by *H. E. Winlock*. Pp. 18, pls. X. Metropolitan Museum of Art, New York, 1942. \$2.00.

In January 1908, Edward Ayrton, working for Theodore M. Davis, discovered a cache in the Valley of the Kings which was little understood at the time. This monograph deals specifically with objects from the cache selected by Dr. Winlock for the Metropolitan Museum as early as the spring of 1909, also with a small mask which came to the Museum in the Davis private collection. The author traces the unfortunate vicissitudes of the material after its discovery and clears away misapprehensions in the writings of Davis, Maspero, and others. He refers to objects left behind in Egypt and gives his interpretation of them. Parts of floral collars in New York were determined botanically long ago, but bones from food in storage jars were examined at the American Museum of Natural History only recently, and the results are the newest items of their kind in the book. The author's experience as an excavator gives weight to his observation that this is the only instance known to him of the finding of the remains of a funerary feast, although such feasts are depicted in many an Egyptian wall-painting.

The connection of the things treated with the king whose tomb was discovered by the late Howard Carter is shown to be indubitable and lends special interest to them. In the tomb, the mummy bandages were carbonized and could not be studied as textiles. Persons trained in the history of textiles, who are always avid for particulars about closely dated specimens from antiquity, will revel in the author's detailed, informing analysis of bandages from the cache, the year he adopts for the death of the king being that given by R. Engelbach, 1360 B.C. The hieratic and hieroglyphic inscriptions from the cache have never before been so fully presented, or so thoroughly and acutely discussed as here. It is good to have the significance of all this important material brought to the level of present-day knowledge by the scholar best qualified to judge it. The notes contain acknowledgments to those who have helped him. If he has left some puzzles,

he has put others in a position to work on them. Now that the Near East is in everyone's thought, the book should find many readers.

TOLEDO, OHIO

C. R. WILLIAMS

**THE TEMPLE OF HIBIS IN EL KHARGEH OASIS, Part I. The Excavations**, by *H. E. Winlock*, with plans and drawings by Lindsley F. Hall, Walter Hauser, William J. Palmer-Jones, and Gouverneur M. Peek. New York, 1941 (Publications of the Metropolitan Museum of Art, Egyptian Expedition, Volume XIII). Pp. xvi + 60, pls. LII. \$7.50.

Of Egyptian architecture between the end of the New Kingdom around 1000 B.C. and the beginning of the Ptolemaic rule at 330 B.C. very little has been preserved. The reason for this is not merely that in the period following the 20th dynasty all building activity was very much restricted, for it was resumed under the Bubastid rulers and continued under the Nubian rulers of the 25th and especially under the Saitic kings of the 26th dynasty. Their buildings, however, have been completely destroyed. Of Taharka's magnificent addition to the great temple of Karnak one giant column is left intact, and the buildings of the 26th dynasty, in the capital city of Sais as well as in other places, which we find mentioned in contemporary inscriptions, have entirely vanished. Thus we lack a connection between the forms of New Kingdom and Ptolemaic architecture. The question arises whether a number of innovations which become apparent in the Ptolemaic temples are of native Egyptian ancestry or whether, as has been generally supposed, they are inventions of the Ptolemaic period and possibly show the influence of the Greeks.

It is a strange fact that the missing link exists, not in the Nile Valley itself, but in one of the oases to the west of it, and that it belongs neither to the time of the 25th nor of the 26th dynasties, but to the period immediately following the latter, when Egypt had become a province of the Persian Empire. This missing link is a temple built under Darius I (521-486 B.C.), who greatly favored his Egyptian province. It was erected in the center of the town of Hibis in the Oasis of El-Khargeh, the "great oasis" of the Greeks and

Romans, situated about 180 km. west of Luxor, at the crossing point of a number of important caravan roads.

This temple, partly fallen into decay and covered with *débris*, was excavated in the years 1909–1913 by the Archaeological Expedition of the Metropolitan Museum of New York and immediately restored by Emile Baraize for the Egyptian Department of Antiquities. H. E. Winlock led the excavation, assisted by the late H. G. Evelyn White, who also copied the Greek inscriptions. The late N. deG. Davies copied the Egyptian reliefs and inscriptions, a task for which he had to return to the place several times, and which only in 1939 was definitely finished.

After a brief preface recording the history of the excavations, Winlock begins with a chapter on the site of Hibis and the earlier temple of Amon, of which, however, no more can be said than that it must have existed. A couple of reused earlier blocks, a broken dish with the name of one of the Saitic kings, are the only traces left. It was completely removed when the new building was begun.

The following three chapters contain an excellent report on the history of the temple and an exhaustive description of its construction which enters into the most minute technical details. The temple was erected during the second half of Darius I's reign and was dedicated to Amon. It was orientated from West to East and originally consisted of the sanctuary proper, including a "curiously contrived" chapel, possibly used for oracles, a pronaos with four columns and a hypostyle hall, the roof of which was carried by two rows of four columns each, and which was used as an entrance porch. The outer row of columns was built into a screen which formed the façade of the temple. In front of this façade probably an open peristyle court was planned, but it was never executed. Instead, about a hundred years later and probably under King Akoris of the 29th dynasty (391–378), a covered hypostyle hall was added. At this time parts of the earlier temple which had been largely built on compressible clays had sunk, and extensive repairs had become necessary. Learning from this experience, the builders of the hypostyle hall laid large platforms of sandstone blocks as foundation for their walls and columns. The columns, arranged in three rows of four, divided the hall in five aisles. Under the kings of the 30th dynasty (378–341) Nektanebōs and Nektanebēs,<sup>1</sup> an

elegant portico with eight columns was added. Finally, under Ptolemy II (283–245), a girdle wall of sandstone blocks was added, which surrounded the temple and brought the whole structure to a length of 60 m. In Christian times this wall was used as a convenient quarry, and it is now almost completely destroyed.

As early as the time of Darius I the temple proper had been surrounded by a wider enclosure wall of bricks. Of this enclosure the stone gateway, which pierced it in the axis of the temple is still standing. The wall seems to have been removed, probably under Ptolemy II, when the temenos was enlarged toward the East and a much greater enclosure wall of bricks, 7 m. thick, was built east of the wall of Darius. Its entrance-portal, the "great gateway" built of sandstone to a height of 11.40 m. still stands. The jambs of this portal were used in the first century A.D. as bulletin boards by the Roman governors of the Oasis. Later, probably in the third century, two quatrains of hexameters were carved upon them in honor of a certain Hermeias, who had a stone pavement laid out from here to the inner gateway. From the great gateway an avenue, flanked on either side by sandstone sphinxes and abutting upon a quay, led to the adjoining lake—a feature similar to the approach from the Nile to the great Amon temple at Karnak.

Of the details in which this temple of Hibis differs from those of the New Kingdom and forms a transition to those of the Ptolemaic times, the following should be mentioned:

1. It has a single, not a triple, sanctuary.
2. The columns of the pronaos show the simple campaniform capital in the process of development into the so-called "composite" type. The invention of this type therefore must be regarded as Egyptian, probably originating in the Saitic period.
3. The outer walls are no longer decorated, as in the New Kingdom, with scenes showing the earthly triumphs of the king but with religious scenes only, just as the inner walls.
4. While the Egyptian architects of the New Kingdom (as those of earlier times) never varied

<sup>1</sup> Incidentally, the above given sequence of these kings was definitely proved by the Hibis temple. While the inscriptions of the portico itself all show the name of Nektanebēs, who for some time was supposed to be the earlier of the two, the name of Nektanebōs was found inscribed on foundation blocks in the ground.

the form of the capitals in the same row of columns, such variations are here found for the first time. In the central aisle of the hypostyle hall palm capitals and capitals of papyrus clusters were used in the same row, and the same is true of composite capitals and lotus cluster capitals in the portico. Thus the diversification of capitals, which so far had been known from Ptolemaic temples only and had been attributed to an influence of the Greeks, is proved to be of native Egyptian origin.

5. The capitals just mentioned showing papyrus clusters are an elaboration of the composite type. They show the originally continuous rim of the campaniform structure divided into eight lobes, two different species of papyrus gracefully alternating with one another—also a feature which had not been known before Ptolemaic times.

6. The roof of the portico was of wood, stuccoed and painted. It proves that the use of wooden-roofed porches, as they are known from late structures at Medinet Habu and Philae were a native idea. It may have originated in the Delta, where wood was less costly than stone, which had to be shipped down from Upper Egypt.

7. The basilical form, and with it the lighting through clerestory windows, has been abandoned. Instead, we find flat roofs (as they were universally in use in the Ptolemaic-Roman period) and a lighting by skylight holes in the roof slabs.

In the last chapter Winlock discusses a number of buildings of the Christian period which were found by the expedition: private houses of the late third century A.D. with well-built brick walls and vaulted ceilings, and others of poor construction. There was, besides, a small Christian church, probably built in the first half of the fourth century. It was erected against the north side of the portico and the northern part of the earlier temple façade and was built up of stones from the girdle wall and of decorated blocks from the Ptolemaic building. It is interesting to see how these pagan blocks were made suitable for their new purpose. The bas-reliefs were masked in clay, faced with a coating of lime plaster and painted red. Of this church not much more than the mere foundations has been preserved, but the place of the sanctuary, with three steps leading up to it, and a possible baptistery near the entrance could be recognized. Furthermore, the remains of two columns, stuccoed and whitewashed, were found, which divided the church longitudinally into a

narrow central nave and two side aisles. One of the capitals could be restored from the fragments. It shows an elaborate palmetto decoration, with a standing putto inserted, who holds two wreaths in his uplifted hands.

Winlock's book is illustrated with 52 plates, giving excellent photographic views of the temple and its parts, before and after the restoration, a map of the city of Hibis and its surroundings, and elaborate general and detailed plans of the temple. It is the first of three volumes on the Hibis temple. The second, containing the Greek inscriptions, was published in 1939. A third volume is to contain the interesting, and in parts very unusual, reliefs and the Egyptian inscriptions of this unique sanctuary, the excavation and publication of which is one of the outstanding achievements of the Metropolitan Museum and of its former director.

UNIVERSITY OF PENNSYLVANIA H. RANKE

THE TEMPLE OVAL AT KHAFĀJAH, by *Pinhas Delougaz*. Pp. xix+175, 126 ill. in text, 12 pls. Oriental Institute Publications, Vol. LIII. Chicago, 1940. \$10.00.

The remains described in this volume owe their recovery, in large part, at least, to the most recent advances in archaeological method and ingenuity. Twenty years ago this work might not have been possible. We know today that a similar structure existed at al-'Ubaid, where excavations were conducted by Hall and Woolley between 1919 and 1924. It had not been recognized at the time. The reason for that failure was not so much the carelessness of the excavators as the novel character of the remains in question, coupled with their poor, almost vestigial, state of preservation. Since the same conditions obtained at Khafājah, the achievement of the Oriental Institute's Iraq Expedition in bringing to light the Temple Oval is a remarkable pioneering effort.

The height of the extant portions was exasperatingly slight. The building material, sun-baked plano-convex brick, was often weathered beyond recognition. The area involved was relatively large, so that the whole undertaking called for a considerable expenditure of energy, funds, and patience. It required four campaigns to accomplish the task. It is fortunate, indeed, that Mr. Delougaz, who was in charge of these operations, was able to make use of his engineering skill and resourcefulness, in addition to his more orthodox archaeological experience. The final test came with

the realization that a similar structure may have existed at al-'Ubaid. A few days of soundings conducted on that site with the generous approval of Woolley, its previous excavator, bore out brilliantly Delougaz's theory by bringing to light a second Temple Oval.

The Khafajah Oval went through several distinct occupations, all falling in the Early Dynastic period. For purposes of general description it will suffice to give a very brief account of the initial occupation. The area involved covered about 8000 square meters. That large space was first dug by the original builders to a depth of some 8 m., the operation entailing the removal of approximately 64,000 cubic meters of soil. The resulting huge cavity was then filled with the same amount of virtually pure sand. It is in these truly heroic preparations that we have perhaps the outstanding characteristic of the entire enterprise.

Upon this laboriously laid foundation was built an outer enclosing wall with rounded corners; its average depth was 1.50 m. Parallel to it most of the way and about 5 m. apart ran an inner enclosing wall averaging 3.50 m. in width. The space between the two walls was filled with a solid packing of pure clay. At the northern end of the complex the distance between the two walls widened, thus providing space for a separate building, "House D." Within the inner oval was a rectangular courtyard about 56 x 38 m. Its eastern part was given over to a platform about 25 x 30 m., obviously the base of the principal sanctuary which must have crowned the whole complex. No material evidence for such a shrine has been recovered. The platform must originally have risen to a considerable height. Its extant portions, however, had been worn down to the lowest few layers of brickwork, so that no traces of the superstructure survived, but the character of the entire complex, its underlying layer of pure sand, its flight of stairs converging upon the platform, and lastly the nature of the objects found within the oval, leave no doubt as to the original scheme.

The origin of the temple oval and the reasons behind this type of religious architecture cannot be discovered at present. Mr. Delougaz is wisely content with sketching some of the possibilities; he has refrained from leaning definitely towards any of them for the time being. The fact of such a temple type in the Early Dynastic period, and apparently at no other time, is a solid enough contribution. Speculation about it could not possibly

have enhanced the achievement of the very recovery of this novel form of religious expression. UNIVERSITY OF PENNSYLVANIA E. A. SPEISER

KIZZUWATNA AND THE PROBLEM OF HITTITE GEOGRAPHY. Yale Oriental Series, Researches, Vol. XXII, by *Albrecht Goetze*. Pp. xi+86, with folding map. New Haven, Yale University Press, 1940. \$2.50.

Ever since the successful decipherment of the Hittite cuneiform of Boğazköy by Hrozný a quarter of a century ago, the problem of Hittite geography has been vexing historians and archaeologists. Many hundreds of names of countries, towns, rivers and mountains occur in the Hittite tablets of the period 1700-1200 B.C., but only a comparatively small number of them can be located with assurance on the map of Asia Minor. The two chief individual problems have been the situations of Arzawa and Kizzuwatna: Arzawa is located by competent scholars both in the south-east (Cilicia) and the southwest (Pamphylia and Lycia); Kizzuwatna is placed in the northeast (Pontus) or the southeast (Cilicia). With the location of these key regions must rotate the locations of nearly all other lands peripheral to the core of the Hittite Empire in north-central Cappadocia.

In the monograph before us, one of the leading Hittite scholars of the world undertakes to collect and to analyze all relevant data, both in Semitic Babylonian and in cuneiform Hittite. This task has been very well performed—so well, in fact, that *Kizzuwatna* will remain a model of how such a problem should be attacked. The reviewer's only general criticism is that the book has been made unnecessarily expensive by the use of such thick paper and elegant binding.

Goetze holds that Kizzuwatna was situated in Cilicia, but extended northward into southeastern Cappadocia beyond Comana in Cataonia, which he rightly identifies with the Hittite sacred city of Kummanni. However, this primary identification goes far beyond the evidence gathered and sifted by the author, which points unmistakably to an identification of Kizzuwatna with the region known to the Greeks as Cataonia, placed by Strabo between the Antitaurus, the Taurus and the Amanus mountains, north of Cilicia and north-west of Commagene. Miss Goldman's excavations in Cilicia have indeed proved that Ishputakhshu, apparently king of Kizzuwatna in the sixteenth century B.C. (following the new low chronology), was suzerain of the Tarsus district, but the bilin-



gual bulla no more proves that Kizzuwatna itself was in Cilicia than the bullae of Putu-khepa and other Hittite rulers (*AJA*. 1937, p. 281) found at Tarsus, prove that Cilicia was Khatti. The evidence brought together by Goetze does undoubtedly disprove the old identification with Pontus (formerly accepted by the reviewer) most decisively, as recognized by Garstang in his detailed review (*Jour. Near East. Stud.* 1942, pp. 233-38). However, from Pontus to Cilicia is an unnecessarily long jump, not required by any evidence which has yet been published. The most plausible argument is, the reviewer believes, only an illusion. In the treaty between Suppiluliuma (so, happily, Goetze) and Šunaššura<sup>1</sup> of Kizzuwatna (pp. 48 ff.), col. iv: 40, there seems no adequate reason for rendering the Accadian *īštu tāmti* or the presumably underlying Hittite *arunaz* otherwise than "from (the direction of) the sea, from the south," just as Heb. *mi-yyam* means "from the west" (lit., "from the sea"). In this case the description of the boundary between Khatti and Kizzuwatna runs northward from (probably) the Taurus watershed to a point east of Caesarea Mazaca, and the river Šamri would be the Zamanti-Su, the western branch of the Sarus, which flows southward some 40 km. in a straight line west of Comana, the ancient sacred city of Cataonia-Kizzuwatna. It cannot be denied that the resulting picture is thoroughly reasonable and consistent in itself, which no previous hypothesis has been.

A very strong argument in favor of Kizzuwatna = Cataonia but not = Cilicia is provided by the decree of Khattusil III, analyzed by Goetze on pp. 21 ff. As he recognizes, Armatana, whose people had invaded Hittite territory in the direction of Kizzuwatna, was south of Išuwa. Moreover, to judge from the fact that people from Armatana (claimed by the Hittites) migrated to Išuwa in the time of Suppiluliuma, who brought them back to their own land, Armatana must have been southwest of Išuwa on the right bank of the Euphrates, i.e., in the Taurus mountains between Melitene and Commagene, due east of Cataonia. Similarly, the men of Arzawa are said to have invaded Khatti in the direction of Tyana, which is due north of the east-west axis of Cilicia, since classical Cilicia extended along the coast from the

Cilician Gates on the east to just east of Side in Pamphylia on the west. It follows that Cilicia must be Arzawa (Goetze identifies the latter with Pamphylia, though he allows greater extension to the "Arzawa Countries"). As an illustration of the reasonableness of this extent for Arzawa it may be added that the geographical extension of Canaan in a straight line along the coast from north to south was at that time over 500 km., whereas classical Cilicia only stretched for some 450 km. in a straight line.

The text KUB XXVI, No. 41 (pp. 44 ff.) does not seem to the reviewer to prove that Kizzuwatna had once extended as far as the Khabûr in northern Mesopotamia. If the treaty in question belongs to the time of Arnuwanda, the son of Suppiluliuma, being thus a good century later than Goetze's proposed date, it would seem to follow that the men of the Mitannian cities of Waššuk-kana, Irrita and Urušša were fugitives who had fled before the Assyrian conqueror, Aššûr-uballiṭ (a younger contemporary of Suppiluliuma, who outlived the latter), and who were granted homes in Išmirika, a district of Kizzuwatna. This would apparently clear up the involved syntax of the text, which baffled the author (p. 47).

Fatal to the identification of Ataniya with Adana and of Tarša with Tarsus (Tarzi) seems to be the ritual KUB XX, No. 52 (pp. 54 ff.), where we find a description of a festal procession which set out from Comana (Kummannaz) and then successively (each time we read *EGIR-ŠU-ma*, "afterwards") wended its way to the towns of Zunnakhara, Ataniya, Tarša and Kikkipra, accompanied each time by the elders of the city. When we remember that it is some 200 km. in a straight line, over extremely difficult mountains and through (then) dense forests, from Comana in Cataonia to Tarsus, the improbability of the identifications is clear. The whole description presupposes distances of a few miles, not of at least a fortnight's forced marching.

With the argument on pp. 71-73, centering around the location of the town Lawazantiya, the reviewer concurs entirely, especially since he had already come to similar results, partly on different grounds, about the same time (*BASOR*. 78, pp. 27 f.). Khurma the reviewer would locate in the 'Amq, south of Zincirli (apparently called Shamalawa at that time, to judge from the Egyptian records), and Khashshuwa he would locate in the general region of Mar'ash (then called Gar-gumma). Lawazantiya may have been situated

<sup>1</sup> Where Hittite or Assyrian orthography makes the English equivalent of a sibilant doubtful, the reviewer employs the conventional symbol *š*. Where Babylonian or Egyptian evidence makes the value of a sibilant certain, *s* or *sh* is used instead.



in the neighborhood of Zeittin, over 30 km. in a straight line north of Mar'ash; Zeittin would then be at the southeasternmost corner of Kizzuwatna.

Of great archaeological importance is the question of iron in Kizzuwatna, which the author treats briefly in connection with the letter from Khattusil to an Assyrian king (Adad-nirari I, ca. 1310-1280, in the reviewer's opinion, for a number of cogent reasons), translated on pp. 26-31. Goetze's objection to the usual interpretation of lines 20 ff. as indicating a Hittite monopoly of iron, seems rather forced to the reviewer. The case hinges on one's definition of what constitutes "monopoly." The best commentary to the "good iron" (*parzillu damqu*) of the original is provided by Schaeffer's discovery of a steel battle-axe at Ugarit, from about the fourteenth century (*Ugaritica*, 1939, pp. 108 ff.). Since there are ancient iron workings in the Antitaurus, there is no reason *a priori* why iron objects should not have been mined, smelted and manufactured in Kizzuwatna, so Schaeffer's suggested Mitannian provenience may perhaps be narrowed down to a Cataonian source. Kizzuwatna had by that time been quite Hurrianized, as shown by Goetze, so we may still credit the development of the iron industry to the Hurrians.

There are a number of places where the reviewer would render the cuneiform text of the documents and passages translated by the author somewhat differently. One example must suffice here. KBo I, No. 14, obv., 15-19, should, the reviewer believes, be translated as follows: "If Turira is yours, plunder it,<sup>2</sup> (but) as for my subjects who live in the town, do not touch their property. If Turira is not yours, write me, so that I may plunder it<sup>2</sup> without touching the property of your people who live in the town. As for me, the lion, why do the inhabitants of Turira make me smell garlic?"<sup>3</sup>

<sup>2</sup> The author renders *hu-bu-us* "smash (it)" and *lu-uh-bu-us* "that I may smash (it)," deriving the forms from *habāšu*, "to crush." However, the context shows that we must translate "plunder it," etc.; *hubus* stands for *hubussu* from *hubutšu*, by phonetic principles well established for the Assyrian dialect.

<sup>3</sup> The last sentence is not explained by the author, though he has correctly pointed out that the verbal form "is apparently II 1 of *ešēnu* 'smell.'" The two preceding characters, copied by Figulla as *SUM-IA* (with a question mark attached to the *IA*) and left obscure by the author, are evidently *SUMŠAR* (Forrer, No. 251), literally "garden

All students of the history and archaeology of ancient Asia Minor must remain profoundly obligated to the distinguished author for his admirable treatment of the subject.

W. F. ALBRIGHT

THE JOHNS HOPKINS UNIVERSITY

INTRODUCTION TO HURRIAN, *Annual of the American Schools of Oriental Research*, XX, by E. A. Speiser. Pp. xxx+230. New Haven, 1941. \$2.50.

The restoration of the Hurrians from complete obscurity to their stellar rôle in the ancient Near East is a major triumph of archaeology. The Hurrians first appear in the third millennium, and throughout the second millennium B.C. they are a leading factor in the history of the Near East. Their profound influence is attested by archaeological finds and inscriptions in Mesopotamia, Asia Minor, Syria-Palestine and Egypt.

The earliest Hurrian documents published so far are six tablets from Mari of Hammurabi's period. The great bulk of the Hurrian texts, however, are between four and five centuries later and date from about 1400 B.C., in the remarkably cosmopolitan Amarna Age. Among the royal epistles found at Tell el-Amarna is the very long one in Hurrian from Tushratta, King of Mitanni. While this letter, which remains our chief source of the language, is not a bilingual, clues to some of its passages are derived from the parallel portions of Tushratta's Accadian letters. Boghažköi has yielded a few purely Hurrian texts and quite a number of Hittite tablets with Hurrian passages interspersed. There is furthermore a group of Hurrian tablets in the Ugaritic alphabet. While these texts are hard to interpret, they provide a valuable check on the orthography of the other Hurrian texts, which are all written in the cuneiform syllabary of Mesopotamia. Also from Ugarit is a vocabulary in which Sumerian words are translated into Hurrian (instead of into Accadian). The Nuzu (or Nuzi) tablets contain many Hurrian loan words, while the Accadian letters from Tell el-Amarna have several Hurrian glosses. Hurrian personal names are exceedingly numerous. Such are the scattered sources now at the scholar's disposal.

garlic" (Accadian *šūmu*), recognized in the Near East as well as in the West as one of the most unpleasant odors (unless one has partaken of it freely beforehand). The idea behind this picturesque expression is that garlic is the most offensive odor with which the king of beasts could be confronted.

A comprehensive study of the Hurrian language was published by Messerschmidt as far back as 1899. In 1909 another appeared from the pen of Bork. Meanwhile, subsequent discoveries have widened our horizons. For example, the Ugaritic material was first unearthed in 1929; the Mari texts were first published only in 1939.

In recent years a galaxy of competent scholars has been steadily advancing our knowledge of the Hurrian language. Von Brandenstein, Friedrich (whose *Kleine Beiträge zur churritischen Grammatik* deserves special mention), Goetze, Speiser and Thureau-Dangin are among the leaders.

Professor E. A. Speiser of the University of Pennsylvania has been interested in all aspects of the Hurrian problem for many years, as his writings, excavations and teaching indicate. His *Introduction to Hurrian* marks an advance on previous work on the subject and is indispensable for any further study of the language. Much still remains to be done by specialists in Hurrian, but it is safe to predict that Speiser's book will always be regarded as a notable milestone along the way.

The first chapter deals with the sources, the name "Hurrian" and other introductory matter. The second chapter covers the orthography and pronunciation, which are complicated and difficult, owing to the diversity of the sources. After the discussion of the phonology comes that of the morphology, which is perhaps the most useful chapter for learning how to translate the texts. The final chapter on "construction" takes up the more complex units such as the sentence. Indices of forms and passages conclude the book.

The intricacy of Hurrian is reflected in an illustration singled out by the author on p. 69. The word *a-ru-u-ša-uš-še-ni-e-we* is analyzed thus: the verbal stem *ar* "give" + the perfect-participle *oš* + suffix referring to 1 p. sg. *a-ú* + nominalizing particle *še* (wr. *-šše-*) + attributive particle *ne* + genitive suffix *we*. Hurrian uses suffixes (often in great clusters) to the exclusion of prefixes.

Since this is not the place for a detailed linguistic discussion of Hurrian, I shall not go into the many sound observations of the author or the relatively few points on which I disagree with him.

It is to be hoped that his Hurrian chrestomathy and glossary (mentioned on p. xiv) will some day be published. They would doubtless facilitate the study of this dynamic and rewarding field.

WASHINGTON, D. C.

CYRUS H. GORDON

*ZEUS. A STUDY IN ANCIENT RELIGION*, by Arthur Bernard Cook. Vol. III, Zeus God of the Dark Sky (Earthquakes, Clouds, Wind, Dew, Rain, Meteorites). In two parts, pp. xxix + 1299, figs. 932, pls. LXXXIII. Cambridge: at the University Press; New York: The Macmillan Company, 1940. \$35.

It was in 1907 that A. B. Cook began the great task which was to occupy him for a full third of a century; the names Zeus and Cook have since come to seem indelibly associated. It was a task that few scholars would have had the courage to attack; fewer still could boast the catholic and encyclopaedic knowledge needed to carry it through. For, as ancient writers had said:

"Zeus is the aether, Zeus the earth, and Zeus the sky,

Zeus the whole world, and aught there is above it"

and "all markets and seas and havens are filled with His name"; so that whoever would trace the development and plumb the significance of his cult must needs command the whole complex picture of the ancient world.

The first volume of *Zeus* appeared in 1914. It was devoted entirely to Zeus as god of the bright sky, especially in relation to the sun and other heavenly bodies. As originally planned, a second volume was to have completed the work, with a study of Zeus as god of the dark sky, but the nearly 1400 pages which appeared in 1925 sufficed for only a part of that subject, Zeus as the god of lightning and thunder. Hence this third volume, published fifteen years later, was needed to complete the account of Zeus as god of the weather and of meteorological phenomena.

In format the present volume follows the pattern of its predecessors, and it is equally sumptuous. The magnificent plates, six of them in full color, are, in fact, far more numerous than, heretofore. We must all feel grateful to the Syndics of the Cambridge University Press for making possible so lavish a publication.

Since it is obviously out of the question to discuss in any detail the many subjects here treated (an adequate review of that type would in any case require a whole board of experts—or another A. B. Cook!), I shall instead content myself with indicating the main outlines of the work, and its major conclusions. While such a bare summary must inevitably involve an oversimplification of the author's arguments, based on many converging lines of evidence, it may at least serve

to call attention to some of the riches embedded in the volume, and in particular to those by-products of the main line of investigation which might otherwise escape notice.

There are six leading sections, each concerned with a special aspect of the weather-god, Zeus and Earthquakes, Clouds, Wind, Dew, Rain, and Meteorites; in a final section Cook summarizes the material of volumes II and III, and presents his general conclusions with regard to Zeus as god of the dark sky.

Since earthquakes occur chiefly near the sea in Greece, it was natural that the Greeks should commonly ascribe them to the agency of Poseidon. Other gods, however, Zeus included, might cause them, and Cook points out that from the second century of our era, it became increasingly the custom to connect them with Zeus (pp. 21-2). He suggests further that the deity referred to in the vague expression, "the god shook," was, on the analogy of similar phrases, Zeus, but this seems unlikely in view of the prevailing association of Poseidon and earthquakes in the early period. Quite possibly the Greek using the phrase had himself no very definite feeling on the identity of the god.<sup>1</sup>

Clouds are frequently, and quite naturally, associated with the weather-god both in literature and in art (pp. 30-43), and the Homeric epithet *nephelegereta* may well be "a pre-Homeric tag originally descriptive of Zeus as a rain-making magician" (p. 31). On the other hand, it is surely unsafe to attach any serious significance whatever to the treatment of clouds in the fantasies of a comic poet (pp. 44-70). Cook identifies the much disputed βασιλεῖα of the *Birds* with Hera, and sees in the Cloud-cuckoo-land a political reference to Argos, with its cult of Hera Basileia and myth of Zeus the cuckoo. This is possible, even if dubious, but to compare Aristophanes' portrayal of Socrates' "cult" of the clouds with an "Orphic" cult (deduced from the much later

<sup>1</sup> In an article which I have not seen (I owe the reference to M. P. Nilsson, *ARW.* xxxv, 1938, p. 159 and n. 2; it is not cited by Cook), E. Hermann, *Gött. Nach.* 1926, pp. 274 ff., showed that the impersonal weather expressions were later than those attributing the phenomena to Zeus. Cook cites no instance of the phrase, "he shook" or "the god shook" earlier than the late fifth century, which would seem to me to suggest that it was a late development on the analogy of the other impersonal or indefinite expressions, and not modelled directly on the phrase, "Zeus rains."

Orphic Hymn to the Clouds) is simply misplaced ingenuity. The rest of the section deals with personifications of the clouds and with cloud-like phantoms.

The most interesting part of the section on the Winds (pp. 103-65) concerns the Tritopatores, worshipped in the Kerameikos, at Marathon, and on Delos. Ancient sources either identify them with the winds or call them remote ancestors. Cook finds the explanation of this apparent contradiction in the naïve conception of souls and winds as identical; these mythical "great-grandfathers" gave life to each succeeding generation in the form of wind or breath. Tritogeneia, Athena's epithet, meant simply "great-granddaughter" and was an assertion of her claim to be a genuine descendant of Zeus, Kronos and Ouranos, but by an entangling of Triton with Triton it came to be interpreted as meaning "born beside the river Triton," while the Tritons, through a like confusion, became controllers of the wind and guardians of the soul.

Various epithets of Zeus apparently characterize him as god of dew, and to these Cook would add Thaulios (as cognate with German *Tau* and English *dew*), a title of the god at Pherai and Pharsalos (pp. 261-83). Were the rites of the Arrephoroi at Athens connected with Zeus? Cook suggests that the dew was considered the sperm of the god, which they carried by their underground descent into the womb of Mother Earth, and that the "something wrapped up" which they brought back was the fruit of this union, the "very child of the ground," Erichthonios (pp. 165-81). A study of the representations in art of the birth of Erichthonios shows Athena as the foster-mother to whom Ge regularly entrusts her child; Zeus, presumably the original father, is gradually ousted as the interested spectator by Hephaistos; i.e. an old Hellenic myth of Zeus and Ge is brought into connection with the representations of the pre-Hellenic cult, Athena and Hephaistos. The crude myth usually told about the birth of Erichthonios, implies, as Cook points out, "the startlingly blasphemous, but ancient, orthodox, and wholly irrepressible, conviction that Hephaistos was the mate of Athena" (p. 223). The interpretation of the Arrephoria is, of course, questionable, but the arguments drawn from vase paintings of the Erichthonios myth seem both ingenious and convincing.

The lengthiest, and the most important, section of the work is that devoted to Zeus and the

rain (pp. 284-881). An interesting account of rain-magic in modern Greece is followed by the much slighter evidence for rain-magic in ancient Greece (pp. 284-317). Strepisades' famous explanation of the cause of rain leads to a prolonged discussion of holed vessels as implements of rain-magic in Egypt, Greece, Italy, and elsewhere (pp. 333-451). For Greece there is the highly complex myth of the Danaids. Cook believes that both the Danaoi and the Apulian Daunioi are "River-folk" (cf. Danuvius, Eridanos, Rhodanus, etc.) and that the arrival in Argos of a people skilled in the ways of water helps explain the Hesiodic line: "Waterless Argos Danaos made well-watered." The wholesale endogamic marriage of the Danaids with the sons of Aigyptos was, he contends, regarded as a fertility charm. Hypermnestira alone preserved her virginity and so hindered the charm, and was for this reason punished by her father (p. 369, n. 7). Not till the fourth century do we find the sisters who murdered their husbands punished in Hades by being made to carry water in leaky vessels. Cook says (p. 426) that they were punished because the murders nullified the effect of the fertility charm. But why, then, were they not punished in the earlier myth also? And would not the fourth-century remodellers of the myth have been concerned rather with the moral aspects of the act than with its effects as rain-magic? However this may be, the *form* of punishment seems to have come from that assigned to those uninitiated in the mysteries (pp. 397-425). For Italy, the discussion of holed vessels centers about the *mundus* and the *lapis manalis* (pp. 427-45).

The fertilizing rain might be considered as the seed of Zeus; the imagery was common in poetry, and seems to be the basis also for the myth of Danae, impregnated by a shower of golden rain (pp. 451-78). But Zeus might also send ominous storms of rain, showers of blood, stones, and food; of each type a useful table of recorded instances is given (pp. 478-506). Pyre-extinguishing rains bring us back to mythology: Zeus saves Alkmene from the wrath of Amphitryon by a timely thunder-storm, as is shown on a number of vases; in the better-known story of Croesus, Bacchylides has Zeus send the rain, but Herodotus, with dubious theological warrant, permits Apollo to usurp the powers of the weather-god.

The discussion of Zeus Ombrios provides the occasion for an interesting account of foreign rain-gods who were assimilated, in greater or less

degree, with Zeus (pp. 525-61); worthy of particular note is the survey of Zeus-types on early Indian coinage. Here, in a series of 23 coins (figs. 350-72) we can trace the gradual process of orientalization, and observe a tentative identification of Zeus and the Indian storm-god, Indra.

In the cult of Zeus Hyetios at Didyma, and of Zeus Polieus on Cos, the preliminary ritual of ox-driving was a means of ensuring the self-selection of the victim to be sacrificed. The account of this and similar practices serves as the starting point for the most consecutive and sustained passage of the present volume (pp. 561-873). For the ritual of the Bouphonia in the Dipolieia at Athens is obviously akin to the other instances of ox-driving. The date of the festival, during the hottest days of the year, suggests that its primary and original purpose was to obtain the fertilizing rains, and this is supported by other indications (pp. 601-5). The ancient frieze on the old Metropolitan Church in Athens shows that the axe used was a double-axe. If this sacred implement was the very symbol of the storm-god, then the pouring of water over it by the Hydrophoroi, ostensibly to sharpen it, was probably itself an act of sympathetic rain-magic. The sanctity of this axe helps to explain further the care taken to transfer the guilt from it or the priest who wielded it to the knife, which was finally condemned and cast into the sea. Of particular moment, however, is the fact that the ox is apparently treated as divine—hence as the embodiment of Zeus Polieus (Zeus as an ox, both in myth and in the cult of Zeus Olbios, is discussed in pp. 605-55). This assumption raises a further question: "Can we really suppose that at Athens, the chief centre of Hellenic civilisation, Zeus *Polieús* himself was conceived as struck by a double axe? Or that the sacrilegious striker, after poleaxing his god, was allowed to flee from the spot and escape into safety?" (p. 657). Yet Pausanias, immediately after describing the ritual of the Dipolieia, refers to the representation of the birth of Athena in the east gable of the Parthenon, in which, of course, this very thing was done. "It is clear that the Athenians even of the Periclean age were prepared to tolerate the conception of Zeus as struck on the head by an axe. . . . This they would never have done, unless behind the myth there had been some ritual practice of immemorial sanction; and it is difficult to resist the conclusion that the practice concerned was that of the Dipolieia" (pp. 661-2).



An investigation of the birth of Athena as depicted in art discloses two main versions, one in which Zeus is attended in labor by the Eileithyiai, the other in which the head of Zeus is cleft by Hephaistos. The first may stem from the cult of the Eileithyiai at Megara, the second from the Athenian cult of Zeus Polieus. Subsidiary forms result from the combination of these two, and culminate in the design by Pheidias for the east pediment, of which Cook makes bold to attempt a restoration (pp. 688-726). The significance of the myth Cook finds in the accommodation of the various levels of cult on the Acropolis, whereby the "Pelagian" Athena was affiliated with the Greek Zeus. Cook believes that Athena herself was at the outset a mountain-mother of the Anatolian kind, identical with the rock which originally she was—and which might still be called by Homer simply 'Αθήνη (*Od.* 7,80), in the singular. Her chief attributes are, therefore, the various manifestations of the life of the rock, her life: the olive-tree, the snake, and the owl (pp. 747-836), while her aegis is simply the exuviae of the owl and the snake that she once was, still retained by the humanized goddess. "As a Snake, she dons the scaly skin with its baleful head. As an Owl, the feathered skin with its round glittering eyes" (p. 837).

The account of Zeus and meteorites (pp. 881-942) includes a discussion of *baityloi*, holy stones endowed with the power of self-motion, of sacred stones in the cults of Cybele, Duses, Elagabalus, and of the stone of Kronos. Most interesting here is the publication of a decorated neolithic pounder of ca. 2000 B.C., found at Ephesus (pl. LXVII, in color, and fig. 731, p. 898), which in shape strangely resembles the bottle-shaped goddesses figured on coins of Asia Minor (figs. 732-37), and is quite possibly itself a *baitylos*.

A final chapter (pp. 943-74) summarizes the long study of the God of the Dark Sky, and closes with an account of the Pheidian statue at Olympia, and its influence both on religious thought and on art. A last eloquent paragraph suggests some of the religious insights which the cult of Zeus, in its long road of progress and development, made possible to the nobler souls among the Greeks.

So much, however inadequate, for the chief topics of the volume proper. The supplementary volume contains three appendices in the form of monographs on Floating Islands (pp. 975-1015), The Prompting Eros (pp. 1016-25), and the

Hieros Gamos (pp. 1025-65). The first gives all the many references to floating islands. Most important, for its influence, was that on a lake near Sardis, which gave rise to the widespread *kala-thiskos* dance, which first appears figured on vases and in stone in the mid-fifth century. Cook plausibly conjectures that the dance was introduced into Sparta from Sardis by the poet Alcman (p. 1008). The evidence, whether literary or monumental, for the Hieros Gamos of Zeus and Hera turns out to be comparatively late; apart from one passage in the *Iliad*, itself probably a late addition, neither myth nor ritual is attested before the fifth century, and there is little evidence even of that period. Further, there is reason to believe that, even in those places where the story appears, one party, Zeus or Hera, was not the original partner concerned. "In short," Cook concludes, "the case for Hera as essentially and *ab origine* the bride of Zeus is neither proven nor probable" (p. 1065). Three promised appendices, those on Zeus at Corinth, at Dodona, and at Olympia, have unfortunately been denied us.

Pages 1066-1197 consist of Addenda to the whole work, and the volume ends with a 99-page index of the same valuable form as those in the preceding volumes. I should point out, however, that it is an index only to the present volume, and that it is still necessary, when consulting the work, to use the separate indices to each part.

As in the past the method pursued has been one of close integration of literary evidence with the evidence of the monuments. Illustrations, therefore, are an essential feature of the work, and are both numerous and good; likewise, all epigraphical documents, and the less readily accessible literary references, are regularly quoted in full. This is excellent, and gives the whole study a permanent value as a reference work which is largely independent of the merit of specific interpretations by the author. For Professor Cook has never been one to shrink from bold interpretations, and one hypothesis is made to serve as a basis for another till the whole structure sometimes rises to giddy heights. On the other hand, he regularly presents the interpretations of his predecessors, and even, with disarming candor, the objections offered to his own theories, so that we have set before us the complete evidence, to judge as we will.

Cook's well-known discursive approach provides the usual rich harvest of *parerga*. Thus, in the chapter on the personification of Clouds, a



passage from Euripides occasions a 20-page excursus (in finely printed notes, with 12 line drawings and 3 plates) on the birth of Dionysos from the thigh of Zeus, the suckling of Herakles by Hera (viewed as a comparable ritual of adoption), and similar myths from many lands (pp. 80-99). Again, Kretschmer's explanation of the name Athena (p. 191, n. 8) leads to 9 pages of notes and illustrations on *Gesichtsturnen*. Other noteworthy digressions are those on the *tettix* (pp. 250-7), on the significance of the reaping of the corn-ear in the Eleusinian rites (pp. 299-307), Cerberus (pp. 403-16), Europa and the Bull in art (pp. 615-28), Io in art (pp. 631-42), and the pomegranate (pp. 813-8).

There is also much of great value to be found in the illustrations. About 150 of the figures or plates are in some sense new: unpublished material, new photographs of previously published objects, and, frequently, drawings from fresh specimens of coins. Many of the new objects are from Cook's own collection. I here note the following: pl. I and fig. 1, a bronze medallion of Mytilene, struck by Valerianus, illustrating *Iliad* 20, 56-65; pl. XVI, a r.f. hydria of the last quarter of the fifth century, depicting Apollo visiting the Lesbian "oracle" of Orpheus (in this connection see now I. M. Linforth, *The Arts of Orpheus* 1941, pp. 119-38); pl. XX, a bronze statuette of a praying negro (?) from Ephesus; pl. XXXIV, good new photographs of a r.f. amphora of late, coarse style in the British Museum, which is now definitely identified as the vase once in the Museo Vicenzio, originally published in 1798; fig. 297, a late r.f. aryballos (*num lekythos*?) in the British Museum, depicting Danae and the shower of gold; pl. XLIV, a malachite cameo of Zeus with oak-wreath and aegis; fig. 373, a bronze seal from Egypt, with an incised inscription in an archaic alphabet of Graeco-Phoenician character, possibly containing the name Marnas; fig. 405, a small votive table in terracotta, from the Kabeirion near Thebes; pl. XLVI, a fine terracotta plaque of Europa and the Bull, and a bronze mirror of identical design; fig. 439, an ancient copy of the famous intaglio head of Io by Dioskourides; pl. LIX, the first adequate illustration of a pelike by the Villa Giulia Painter, which represents Zeus as white-haired; pl. LX, a Nolan amphora in Berlin showing an Athenian citizen gazing at the owl on the Acropolis; pl. LXII, a bell-krater at Leipzig of Perseus presenting the Gorgon's head to Athena;

pls. LXIV and LXVI, excellent paintings by Mrs. D. K. Kennett of the west pediment of the temple of Artemis at Palaioopolis, Corfu, and of the pedimental relief from the temple of Sulis Minerva at Bath; fig. 659, a "Gorgon's" head on a M.M. II seal of black steatite; pl. LXVII and fig. 731, the *baitylos* referred to above; pl. LXXXIII, a head of Hera (?) cast in blue glass, from Girenti, and to be dated about 400 B.C.; pl. LXXXIV, a bust of Zeus Sarapis in lapis lazuli; pl. LXXXVIII, a bronze mace from Willingham Fen (the last three are fine color plates); pl. LXXXVII, a terracotta eagle, with a wreath in its beak, standing on a bull's head, from Olbia; pl. LXXXIX, a fine marble head of Juno Lucina (?); figs. 894-95, a pair of decorated double axes of bronze, one from Crete, the other from Attica; pl. LXXXII, a bronze statuette of Zeus Olympios found in Bulgaria.

The book is remarkably free from misprints and careless errors—a feat for which author, type-setters and proof-readers alike deserve praise. On page 39, the description of Bartoli's drawing of a frescoed ceiling from the Golden House is neither adequate nor accurate, and seems to be based rather on the Latin description in the 1750 publication than on the drawing itself. On pl. IX the opponent of Athena in the east frieze of the Altar of Pergamum is identified as Enkelados, but in the text, p. 56, as Alkyoneus. The figure is labelled Alkyoneus in the various Pergamum publications that I have seen, and Schuchhardt suggests that Enkelados appeared in the missing section between the Zeus and Athena groups. The lekythos of pl. XV, 2, does not depict "Herakles suckled by Hera," but Aphrodite and *Erotyloi*, as is correctly stated on p. 94, n. o. On p. 517, line 5, read Amphitruo for Hercules. Other errors in all three volumes are corrected on pp. 1198-99.

It is cause for rejoicing that volume III was ready for the press before the full impact of war had begun to be felt. Professor Cook had long since earned our respect and gratitude for his painstaking scholarship, and now deserves our warmest congratulations on the successful completion of this labor.

WILLIAMS COLLEGE

FRANCIS R. WALTON

AN AMPHORA WITH A PRICE INSCRIPTION IN THE HEARST COLLECTION AT SAN SIMEON, by D. A. Amyx (University of California Publications in Classical Archaeology, Vol. I, No. 8). Pp. 179-206, pls. 25-27, figs. in text, 2. Berkeley

and Los Angeles, California, University of California Press, 1941. \$0.25.

The Hearst collection of vases contains a number of unusual items, and this is a careful study of one of them, a black-figured amphora of the mid-sixth century, by a pupil of Professor H. R. W. Smith. Amyx points out that the inscription, which should preferably be transcribed  $\delta\upsilon' \acute{o}\beta\epsilon\lambda\acute{\omega} \kappa\alpha\iota \mu' \xi\theta\iota\gamma\epsilon\varsigma$ , is "the only known price inscription painted by the artist on the surface of a vase, and the earliest intelligible price inscription of any kind." Hackl's data, supplemented and reexamined, show that the price is in line with the comparable vase prices known to us, and pages 186-192 should be indispensable to Heichelheim in preparing for publication Glotz's collection of all known Greek prices. Amyx has shirked no problem which the vase presents: there are good sections also on the style, which puts it in Beazley's Group E; on the subject, a winner of the hoplomachia, with his attendant carrying the great prize tripod; and on the inscription with its paratactic construction, the accusative with  $\theta\iota\gamma\gamma\acute{\alpha}\nu\omega$ , and the meaning of that verb. Wide-ranging, conscientious in statement and in documentation, and lively, the study as a whole seems to me a model of what such studies should be. Smith's good photographs are a promising foretaste of *CVA*. San Francisco I.

HARVARD UNIVERSITY

STERLING DOW

THE COINAGE OF THE WESTERN SELEUCID MINTS FROM SELEUCUS I TO ANTIOCHUS III, by Edward T. Newell. Numismatic Studies, No. 4. Pp. 450; pls. LXXXV, map. New York, American Numismatic Society, 1941. \$6.00.

This is the companion piece to the *Coinage of the Eastern Seleucid Mints*, published in 1938. The first 36 pages are devoted to addenda to the previous volume, and Chapter XII is a résumé in which the material of both is summarized. The two form a single work concerned with the assignment of the Seleucid coins, struck between the years 306 and 186 B.C., to the proper persons and the proper mints.

In regard to the former problem Newell had the pioneer work of Sir George Macdonald to guide him, an advantage which he highly appreciated, as the dedication of his first volume shows. This iconographic study is full of pitfalls. To be sure, anyone can distinguish the features of the deified Seleucus I from those of Antiochus I in his old age, but the portraits of younger men are not

so simple. There is a certain amount of family likeness, and a great deal of variation in the portraiture. In addition, the head of the father often appears on the coins of the son, and the die sinkers by no means always made their likenesses keep pace with the age of the subject. A particularly difficult question is the division between the coins of Antiochus I and II. For example: at Sardes, Antiochus I strikes first the head of his father and then a youthful portrait of himself; Antiochus II uses first an elderly portrait of his father and then his own; but at Phocaea the elderly head is issued under Antiochus I himself. Further to complicate matters, at Smyrna, Antiochus I uses first the elderly portrait and then a youthful one which becomes younger still on the first series issued by his son—the magistrates' monograms leave no doubt as to the necessary sequence. Under such conditions, it is obvious that the hope of uniform procedure at the various mints must be entirely abandoned and each case tested by patient comparison within the series and with those of other cities. Newell is scrupulous to record uncertainty where it exists and the reviewer can find no cases where he is more doubtful than the author. One may wish that the kings had had more respect for uniformity, and still more that the artists had exercised less individuality (though I do not think any Seleucid king suffered such variety of treatment as did George Washington); but there is some compensation in the occasional brilliant successes, and anyone who wants to know what the early Seleucids looked like—or, perhaps, what they ought to have looked like, is advised to inspect the following illustrations: Seleucus I, pl. LXIX. 7 (Pergamum, struck under Philetaerus), pl. LIV. 6 (Sardes, struck under Antiochus I); Antiochus I, young, pl. LV. 1 (Sardes), old, pl. LVI. 1 (Sardes, struck under Antiochus II); Antiochus II, pl. XX. 12 (Antioch); Seleucus II, young, pl. XXIX. 10 (Antioch), bearded, pl. I. 9 (Tarsus); Hierax, pl. L. 5 (Tarsus); Seleucus III, pl. XXV. 6 (Antioch); Achaeus, pl. LX. 1 (Sardes); Antiochus III, pl. XXIX. 20 (Antioch).

Of course, it is the assignment to mints which is Newell's great achievement. To a certain extent the iconography assists him: a coin of Seleucus III, for example, cannot come from Bactra, for Bactra was lost after Antiochus II; the coinage of Achaeus must be from Sardes. This necessitates a careful study of the historical sources, and the citations of Greek and Latin texts from Polybius

to Malalas show with what thoroughness the author searched. But the help from literary records is slight; the great bulk of the work had to be done from the coins themselves. Here there are various considerations to be taken into account. The best evidence is that of excavation; not that silver often appears in an excavation, but the inevitable bronzes place themselves and also the silver issues with which they are related. Thus the mints of Seleucia-on-the-Tigris, Susa, Dura-Europos, Antioch, Tarsus, and Sardes are fixed. Provenance is useful, even when not so exact. So the number of pieces attributed to Apamea which are recorded as coming from Syria (69 of 27 types) is strong confirmation of the general location of the mint. Occasionally, also, a single die will be used in more than one place; obviously the places cannot be far apart. This is the case with the obverse die of a tetradrachm which saw service at Abydus, Ilium and Alexandria Troas (Nos. 1555, 1560, 1563).

Style alone may be a valuable indication of the appropriate region and in the use of this kind of evidence Newell was highly gifted. It is not the kind of judgment that can very well be argued. When he says that the coinage of Smyrna has a "general western Asia Minor appearance" or comments on the extremely close connection between Seleucia Pieria and Antigonea, he is evidently expressing an opinion incapable of proof, but anyone who has had the advantage of working with him will recognize that his opinion is a matter of great importance. Moreover, except in those cases which he has himself left uncertain, it is noticeable that other elements come in to fortify his judgment from appearance. The style assigned to Nisibis is described as Mesopotamian; the eastern finds, the propriety of the Dioscuri as a type in that region, the impossibility of inserting the issues among those of the available known mints, and the *a priori* likelihood of a mint there combine to strengthen his case. Instances might be multiplied, but it is sufficient to say that his assignments are so carefully reasoned that they may be considered settled unless the positive evidence of excavation should upset them. He has done all that the present evidence makes possible.

Sometimes the symbols used settle the matter. The single example of actual inscription is Edessa, where the mint master, with a consideration for posterity, rare in his age, put ΕΔΕ on the reverse. But the dove of Ascalon, Artemis Kindyas at Bargylia, the winged griffin of Phocaea, Athena

Ilias at Ilium, the feeding horse of Alexandria Troas and a dozen others are equally sure. Altogether there are 37 mints that may be considered settled (on pp. 26 f., with the greatest politeness, he declines to abandon Ecbatana for Rhaga, as suggested by Tarn). This leaves perhaps three dozen groups, varying in size from single specimens to whole series, the origin of which can be located only generally, or not at all. In bulk they form an extremely small proportion of the whole, but they show that by no means all the details are settled. Beyond doubt, future excavations will yield small bodies of new material, as Dura-Europos did, and settle some of the existent problems.

There are other things that need to be done as well. In spite of his heroic attempt to compress the too luxuriant data into the résumé, it cannot be said that any very clear picture of Seleucid monetary policy emerges. There is room for a summary which should deal less with types than number of mints and size of output and maintenance of standard. The conclusions need to be written into the history of the period. And the story needs to be carried on. His own work on *The Seleucid Mint of Antioch* has told most of the tale for that city, though he would certainly have amplified the telling now. But what of the later fate of the other Seleucid cities? What of the coins of Antiochus IV? And what of the critical period after Magnesia, when the cities of Asia Minor were freed and went back to the types of Alexander or their own civic types? That period, so important, so little understood, which saw the rise of the Athenian New Style, the spread of the Cistophori and the advance of Rome! Newell's American colleagues will serve his memory very ill if they do not carry forward the studies for which he provided so strong a foundation and such abundance of material.

But the great work has been done. The essential problems of the first Seleucids have been settled for us more definitively than those of the Ptolemies by Svoronos, more completely than any numismatic problems of like scope. These mighty volumes with their evidence of accuracy and patience and care, speak more eloquently still of the skill, the judgment, the courage of their author and of an ambition, not for himself, but for the cause of learning.

I write not as a reviewer, but as a pupil and a friend; I should be ashamed not to do so. At the end of this volume is a brief appendix which

bears my name as well as his. He refers to this treatment of *A Seleucid Mint at Dura* "under the joint authorship of Dr. A. R. Bellinger and the present writer. The latter contributed but the attribution, while the able discussion is entirely the work of the former." No one who knew Edward Newell needs to be told what our real relations were in that work: he answered the questions and I wrote the answers down. The world is full of scholars who owe him that kind of debt. We shall never see his like again among American archaeologists, but we can at least imitate his unselfish devotion to his calling and refuse to let his work rest for lack of the attempt to carry it on.

YALE UNIVERSITY

ALFRED R. BELLINGER

UNIVERSITY OF PENNSYLVANIA BICENTENNIAL CONFERENCE, STUDIES IN THE ARTS AND ARCHITECTURE. Pp. 113. Philadelphia, University of Pennsylvania Press, 1941. \$1.25.

This little book contains the papers read at one of the sessions of the Bicentennial Conference of the University of Pennsylvania. The conception of the program, the distinguished array of speakers, and the manner in which the papers are published, are deserving of the warmest tribute. The emphasis of the conference was placed less on the immediate results of new research than on the attempt to estimate the impact of scholarly work on life as a whole and our times in particular. Thus *Studies in the Arts and Architecture* should interest all archaeologists who are aware of their broader human obligations, even though it contains little of technical archaeological import.

This book differs from most *Festschriften*, in that it has a definite coherence, owing to the fact that all the papers deal with, or skirt, the same central problem. A few striking non-sequiturs result from the fact that although the individual speakers knew the field to be covered, and presumably the identity of the other lecturers, they did not know what the others were going to say. Taylor's assumption that his archaeological predecessors would take a reactionary stand prompted him to prepare a stinging criticism of what, unfortunately, no one said. Though he answered few of his own questions, many of them had already been disposed of by Carpenter.

Most of the papers are less concerned with facts than with their ultimate significance. The opinions expressed are the result of original and searching thought, and differ as widely as the

personality of their proponents. Because many of the attitudes are mutually exclusive, no reader will be able to agree with all the views expressed. The reviewer found Carpenter's and Burchard's papers particularly stimulating. Carpenter's study of the cycles of artistic taste comprises an imposing argument in favor of archaeology's claim to a respectable place in the ultimate scheme of things. Greek civilization has always inspired a cult of Classicism. While Classicism itself has altered profoundly during changing centuries, it has always managed to draw many adherents to itself and away from a purely objective study of what Greece really was. It may be argued that since it is a modern trait to "debunk," Carpenter's realistic survey is therefore typical of the modern Classicism. One can only answer that his study goes much deeper than mere "debunking," and observe that official Classicism has definitely not yet reached the "debunking" stage; one hopes that it never will embrace "debunking" for "debunking's" sake. Carpenter's study seems to contain the answers to Morey's pessimism and to Taylor's dissatisfied confusion, with the implication that the recent loss of public interest in Classicism is due to the fact that the Classicist cycle has fallen, we hope only momentarily, behind the larger cycle of contemporary intellectual and artistic interests.

Burchard's "The Effect of Economics on the Arts" complements Carpenter's study, and forms perhaps the finest estimate of the place of art in modern life that the reviewer has read. Burchard is free from the prejudices of some of his fellow speakers, and sees clearly what is great in the art of both the past and the present, and shows clearly that it plays, now, as in the past, a vital rôle in our civilization. Burchard's analysis of modern civilization is sensitive and profound. His paper deserves to be widely read.

It would be difficult for a great institution of learning to find a more suitable way to celebrate an important anniversary than by stimulating and publicizing discussion of this type.

JOHN FRANKLIN DANIEL

THE UNIVERSITY MUSEUM

UNIVERSITY OF PENNSYLVANIA

ARCHAEOLOGICAL PAPERS, by *George W. Elderkin*. 3 vols. Pp. 23, 17+8, 12+10+6+4. Privately printed, The Pond-Ekberg Company, 1941.

This is a group of short communications on a variety of subjects. The first, "The Ancient Altar



with Incurved Sides," notes four examples of this peculiar monument, painted in the pediments of three Etruscan tombs and on the famous "Caeretan" hydria depicting Hercules at the court of Busiris. Three of these have rams' heads at the upper corners, the fourth volutes. The author considers the horns attributes of Zeus Ammon, whom he derives from the East and equates (not too convincingly) with the Greek Salmoneus. The altars are shown to have significance for the cult of the dead, and also connections with fertility, and to have developed from the Mycenaean aniconic pillars and horns of consecration, which spread by way of Asia Minor to Etruria and by way of Phoenicia to Carthage. At Carthage similar altars were represented on funeral stelae, thus confirming their sepulchral significance.

The second paper has two parts, each dealing with the significance of water in certain sculptural representations. In the first, "The Cnidian Aphrodite and some of her Descendants," the hydria used as a support to Praxiteles' famous statue is taken to represent the spring at which the goddess bathes. The well known crouching Aphrodite is receiving a shower from a fountain or from a hydria tipped by an attendant, and it is even suggested that the peculiar support of the crouching Aphrodite in the Metropolitan Museum represents the architectural features of a spring. Further progress of the idea is seen in a Roman mosaic from Tingad in which the spring actually pours from a hydria and from a shell. Lastly, the group of satyr and crouching Aphrodite is taken to be Aphrodite surprised at her bath, a subject actually figured on a Chalcidian vase and not absent from the mind of Praxiteles when he created his masterpiece. In "The Golden Lion of Croesus" there is offered a reconstruction of that famous monument, using the lion, prone on a basis of gold and electrum bricks, as a water spout. It is suggested that since the spring Cassotis was essential to prophecy of the oracle in Apollo's temple at Delphi, the appropriate gift to the god in thanks for a response was a fountain using some of the water of the spring.

The third of "Archaeological Papers" is in fact four papers, each dealing with an inscribed Etruscan object and suggesting a new translation of one or more Etruscan words needed to complete a readable text applicable to the subject involved. In the first case, a drinking silen which was added to a standard mirror scene depicting the adoption of Hercules by Juno, leads to the translation of

*aren*, "silen" and *tua*, "cup." In the second, a scene of the parting of Alcestis and Admetus in the presence of demons leads to the translation *erace*, "shudders"; *nac*, "nor"; *phler*, "to behold"; and *thrice*, "dares." In the third case, the word *evil* on the chimaera in Florence and on an Etruscan altar is interpreted as "Cybele" and in the fourth, *tevarath* on a famous fresco of wrestlers as "umpire." For all these translations applicability to subject matter is the principal criterion, although the translation of each word is tested by other words in the same inscriptions and in some cases by its occurrence in other inscriptions, and although comparisons with Greek and Lydian are made. The fact that the author's results differ totally from those of Fiesel, Goldmann, Torp and others who used this criterion together with a more searching combinative method to interpret these same inscriptions, is indication that applicability to content is too subjective a criterion to yield definitive additions to the Etruscan vocabulary.

DOROTHY KENT HILL

THE WALTERS ART GALLERY

THE ARTS OF ORPHEUS, by *Ivan M. Linforth*. Pp. xviii+370. Berkeley and Los Angeles, University of California Press, 1941.

Anyone who has occasion to examine the Orphic writings will find his task simplified by this work. Linforth is impressed with some striking facts: . . . "that an Orphic religion is not once clearly named in all literature" (p. xi);<sup>1</sup> . . . "that no ancient author ever calls any man an Orphic" (p. 289). He therefore sets himself the question "whether there was such a thing as Orphism" (p. xvi). The decision is "that we have been unable to discern such a religion" (p. 291).

The question has never been put to the test before. Wilamowitz warned us against "sinking into the bog of modern Orphism" (*Der Glaube der Hellenen* ii, p. 385), but his assault was not sustained by an examination of the evidence. Linforth's careful investigation puts the question of Orphism on a new footing. This is a very considerable contribution, since its conclusions involve

<sup>1</sup> In the sense demanded by the author it is doubtful whether anything in classical antiquity is called a "religion." It need not follow, however, that we may not properly call certain things religions. When all is said and done, Herodotus ii, 79 (pp. 28 ff.) fulfills some of the main qualifications for the term.



the whole problem of the mystery religions. The importance of the book as an exploratory study is not lessened for the reviewer because he finds himself in disagreement on one or two basic issues.

The author apologizes for the "long marching columns of disconnected texts" (p. xvi), but he could have spared himself this concern, for the interpretations of the texts, in chronological order up to the year 300 B.C., are carried through with clarity, with a sure and impressive command of the Greek and with such intelligence that for anyone familiar with the literature and the problems raised in it the whole investigation is absorbingly interesting.

The conclusions are illuminating: "We may suppose that the first poems which were composed by the devotees of the mysteries in the name of Orpheus were simple liturgical hymns and metrical versions of the sacred myths. Once the practice had been begun, however, a means of publication was available for untrammelled religious speculation" (p. 301); . . . "a writer, recognizing the multiple authorship of the poems and understanding that Orpheus' title in them was only a transparent fiction, called the authors of the poems, new and old 'Orphics'" (p. 304). Orphism, then, is a matter of hieratic writing, and an Orphic is a person who devoted such writing to Orpheus. The troublesome *Orphica* become the poems written by numerous people under the name of Orpheus. And Orpheus himself as "the expert in ritual . . . in the whole action of the ritual" provides the title of the book, *The Arts of Orpheus* (p. 296).

These positive conclusions about Orphics and Orphism, as poets and literature, are perhaps emphasized here in a way which the character of the book does not warrant, for Linforth's emphasis is placed upon the negative proposition, rather than upon the imaginative conjectures reported above. "However well founded and important this conclusion may be it is purely negative. It simply means that we must renounce the idea of a single comprehensive Orphic religion, conscious of itself and recognized by the outside world, and that we may abandon the attempt to define and describe it" (p. 292).

The final clause will seem extreme to many. Much depends upon its implications, and if these are to be read on the final page of the book the reviewer cannot allow them to go unchallenged. "Some modern scholars have been so impressed by them [the lofty conceptions sprung from the

ugly tales of the Orphic poems] as to maintain that what they call the Orphic religion is the highest manifestation of the religious spirit in Greece. In asserting such a paradox they yield to the same seduction as that which drew certain persons in the ancient world to look for edification in the fantastic and the unclean and they are guilty of disrespect to the nobler speculations of the Greeks" (p. 364).

Whatever we are to understand by this polemic, it is clearly not calculated to awaken interest in what is still one of the most important problems in Greek religion, the place and significance of the mystery religions. For Linforth's conclusions affect the whole question of the mysteries. "In a perfectly natural way, therefore, Orpheus, the poet of the mysteries, came to be thought of as the first founder of the mysteries—of *all* mysteries—and a great benefactor of humanity" (p. 296). "Thus, from this point of view, again, one comes to the belief that 'Orphica' and 'Greek mysteries' were interchangeable terms" (p. 245). This means that what has been called Orphic in the past is simply telestic in general. If, then, the author's investigation shows that Orphism is "not a unity, but an aggregation" (p. 291), it will follow that other mysteries, too, which by their employment of the name of Orpheus, fall within this loose aggregation, such as the Pythagorean, have "no unity of deity, creed or rites" (p. 306). In other words, Linforth, in demonstrating that Orphism is not a "religion," attacks, at the same time, the idea that other mysteries constitute a "religion." The effect of his argument is to show that central doctrines credited to Orphism, not only are not Orphic, but do not exist at all. One of the "lofty and moving conceptions" which draws his fire is the conception of the divinity of man located in the Dionysus dismemberment myth (pp. 307–364).

There can be no doubt that the author's analysis of this problem will have the salutary effect of eliminating loose thinking about the Dionysus myth, as if it provided a thoroughly well-established piece of Orphic theology, one which leaves us free to introduce Orphism into any passage which contains a reference to Dionysus. The evidence for placing the myth in an Orphic setting is, Linforth finds, late and unreliable (pp. 353 ff.). The prominence of the myth at the "very core and center of Orphic doctrine" (p. 356) has, he believes, been won for it by fanciful interpretations of modern scholars. Anyone who attempts

to make a case for Orphism in this connection in the future will have to reckon closely with the very strong case which has been made here, although there are one or two questions which are not answered. But the broader issue, the elimination of this story of Dionysus, with its important doctrine, from the theology of the mystery religions, needs a more convincing explanation of the central texts than we are given.

The most important texts seem to the reviewer to be: Plutarch, *De Esu Carn.* i, 996 B-C (pp. 335 ff.), and Plato, *Meno* 81 B-C (pp. 345 ff.). Space does not permit us to consider each point of Linforth's argument as it relates to each text, but the following analysis will indicate what the objections are to his thesis in its broader context.

The author's procedure with the Plutarch passage has been: to emphasize a negative aspect of the text, that men are not in so many words said to be born of the Titans; to assert that, therefore, the so-called Orphic myth, where men are born from the soot or ashes of the Titans, is not here, although all the other details, including the eating of the flesh of Dionysus, are; to explain the presence of the Titans "in us" in terms of the Hesiodic myth; to declare that though Plutarch would naturally set his ideas about the human soul, if he wished to refer to Titans at all, in the context of Olympians vs. Titans, he recalls here the dismemberment myth because he is writing about the eating of flesh.

If this were a true account of Plutarch's psychological process, it would mean that the version commonly regarded as Orphic, of descent and guilt, with its corollary of the Dionysiac element, was unknown to Plutarch. It would be hard, then, to place this myth with its doctrine in any convincing way in the mystery religions in general.

There are two questions, however, that present themselves immediately. As Linforth observes (pp. 337 ff.), this inference, which he finds in Plutarch, in all probability was one which Xenocrates made long before Plutarch. How then did Xenocrates come to make the same inference? It is conceivable, on the basis of the Plutarch text alone, that we should explain the presence of the dismemberment story by the theme of his essay, the eating of flesh.<sup>2</sup> But we cannot explain it in

Xenocrates in this way and if Xenocrates is in Plutarch's mind, as Linforth believes he is, then we have very little ground for supposing that in Plutarch's case the combination of "Titan in us" with the dismemberment story is other than a unity of two elements which had long been together.

In the second instance, the author's case rests on the theory that there is an easy and natural explanation of the presence of the Titans in the Plutarch passage, one which has nothing to do with dismemberment. This notion of a "commonplace" is the cement which holds Linforth's structure together. But the phrase, "the Titan in us," is not a commonplace. His citations, designed to show that the notion of man's descent from the Titans was a common idea related to the common myth of Titans vs. Olympians, give us no ground for supposing that this idea was common, nor do the texts which support the theory he is criticizing prove that their theory was common. In fact, it may be doubted if the former provide as good a ground as the latter. The texts cited are: the Homeric *Hymn to Apollo*, Nicander, Dio Chrysostom, Aelian, Oppian, the Orphic *Argonautica* (pp. 331 ff.). In each of these references, it is a question of the author's not needing the dismemberment story to explain the phrase "the Titan in us," but finding it possible to offer an explanation in terms of the Hesiodic story, though in the majority of these texts the struggle between Titans and gods is not even referred to. We may not, then, regard this phrase as a commonplace of Greek literature,<sup>3</sup> nor are we justified in describing Plutarch as "recalling the old tradition of the 'Titans in us' which he presents as something separate and apart from the myth of the dismemberment" (p. 337).

As far as the late texts are concerned, neither side of this argument has much advantage over the other. The more plausible hypothesis, however, is still to be found with those whom Linforth is attacking. A doctrine of the divinity of man related to the dismemberment myth has some support in earlier texts, notably in Plato, although, admittedly, it leans heavily on Xenocrates in Plutarch for specific mention of Dionysus.

<sup>2</sup> Among early writers we have only τὴν λεγομένην παλαιὰν Τιτανικὴν φύσιν from Plato, *Laws* 701 B-C. The author's explanation is not quite convincing (pp. 339 ff.). The point seems to be that the tale is one of crime and punishment, as well as lawlessness parallel to human lawlessness.

<sup>2</sup> It should be noted that Plutarch in *Galba* I, when he uses the words ὅμοια τοῖς λεγομένοις, Τιτανικοῖς πάθεσι καὶ κινήμασι is talking about the empire's being torn to pieces, not about Titans vs. gods.

The *Meno* 81 B-C (pp. 345 ff.), it should be noted, and the Plutarch passage are both set in the myth and theory of palingenesis. This ground provides at least the doctrinal content which has been claimed for the dismemberment story and which Linforth cannot find in it until Neo-Platonic times; birth of men, inheritance of guilt, and inheritance of goodness and divinity (p. 359). Such guilt, it is true, is variously described: in Empedocles, frg. 115, it is generalized as a pollution of blood, or perjury; in Plato, *Republic* 613a, it is the ἀμαρτία of some former existence. But it is guilt inherited by the individual and, indeed, it would not be too much to say that the notion of individual moral responsibility is bound up with transmigration from its earliest association with the Pythagoreans. The point to be made in connection with Linforth's rejection of this content in the Dionysus myth is, that in the *Meno*, in Diodorus, in Plutarch, the guilt which is inherent in the conception of palingenesis is mythologically related to the story of Dionysus and the Titans.<sup>4</sup> The author's interpretation of the *Meno*<sup>5</sup> and his criticism of Rose offer no good alternative. The thesis that this Dionysus myth is the traditional one upon which the theory of transmigration, enunciated by "priest and priestesses," is based is still the probable hypothesis. Our evidence for finding this context in Plato is not Neo-Platonic<sup>6</sup> and the author is hardly justified in saying . . . "that the profound doctrine of good and evil which is supposed to be at the heart of the Orphic creed was totally disregarded

by Plato and others" (p. 360). Plato certainly has much to say about the heavenly and earthly nature of man in his accounts of transmigration. There is at least the probability that the context of palingenesis, Dionysus and the human soul, which we have reason to regard as an organic unity in Plutarch,<sup>7</sup> is Plato's context and Pindar's, and that both found it in the religio-philosophical account of the soul in the mysteries at large. Linforth's analysis of these texts fractures their unity and gives us back a structure of unsatisfactorily assembled fragments.

So far as the Orphic side of this problem is concerned (pp. 351 ff.), Linforth maintains in his concluding notes that the earliest connection with the story is to be found in Philodemus and Diodorus.<sup>8</sup> This brings up the hardly debated question of Onomacritus. The Pausanias passage (viii, 37, 5), which says that Onomacritus combined the Titans and Dionysus in the dismemberment myth, the author rejects as of no importance, since Pausanias means by Onomacritus "Ps.-Orpheus," which, in turn, means late invention (pp. 351-353).

One wonders here why the evidence of Herodotus on Onomacritus is not brought in. The omission is perhaps an instance of the over-strict application to evidence "sealed with the name of Orpheus" (p. xiii). But before one can subscribe to the statement that the earliest authority for Onomacritean authorship of Orphic poems is Tatian (p. 351), there must be some explanation of these words: . . . "they had with them an Athenian by the name of Onomacritus a χρησμολόγος, who arranged the oracles of Musaeus . . . he had been caught by Lasus of Hermione in the act of interpolating an oracle into the works of Musaeus" . . . (Herodotus, vii, 6). Surely these are the oracles of Orpheus (cf. *Protagoras* 316d). And does this not mean that it was common knowledge in the fifth, if not the sixth century, that Onomacritus had had a hand in Orphic poetry? So far as the reviewer can see, this inter-

<sup>4</sup> As the author very fairly observes (p. 354), *Cratylus* 400 B-C presupposes guilt of the soul. The σῶμα-σῆμα etymology of this passage occurs in the Philolaic fragment 44B14 (Diels-Kranz), which, in turn, has significant connections with the *Phaedo* on imprisonment of the soul. The Philolaic passage, of doubtful date, speaks of τιμωρία, whereby the soul is yoked to the body. This is a Pythagorean speaking and the context is presumably Transmigration, as it explicitly is in Plutarch, who is also talking about the imprisonment and punishment of the soul.

<sup>5</sup> *Rhesus*, 962-973, has Persephone in the same rôle as the Pindar fragment cited by Plato. She is the giver of the new life; in the *Rhesus* in an Orphic setting.

<sup>6</sup> *Phaedo* 69c is a clear indication, if one is needed, that Plato was absorbed in studying the enigmas of the mysteries for their relation to his own thought. This aspect of Neo-Platonic interpretation has good authority.

<sup>7</sup> The same unity is to be seen in Diodorus' treatment of the myth (pp. 213 ff.). The passion of Dionysus as an allegory of the production of the wine does not exclude its interpretation as of great human significance, as Linforth says it does (p. 317). Palingenesis may be seen in nature, i.e. in the wine, but its real point is that it is a myth of the human soul (cf. *Phaedo* 70c-72e).

<sup>8</sup> Though he leaves the question of *Cratylus* 400 B-C with its phrase οἱ ἀμφὶ Ὀρφέα still open.

pretation of Herodotus does not conflict with Linforth's very interesting analysis of the Orpheus-Musaeus relationship (pp. 119 ff., 155 ff., 166), yet it leads to conclusions which run counter to his. For if this interpretation of Herodotus is correct, there is then so much more reason to regard Philoponus' attribution of Orphic writing to Onomacritus (pp. 161 ff.) as traditional.<sup>9</sup> And the view of Orphism supported, for example, by Guthrie (*Orpheus and Greek Religion*, p. 115), where Onomacritus is a very important link in the chain of evidence, still has some claim upon our attention.

There is, however, little fault to find with Linforth's able study of the whole question of Orphic writing. "Plato in speaking of 'Orpheus and his associates' must have had in mind persons whom he understood to have been engaged with Orpheus in the activities for which Orpheus himself was famous. Such persons would be as the legend has it, minstrels, poets, prophets, founders of mysteries, and other forms of ritual" (p. 281). "All Greek poetry is full of religion, but this was religious poetry by profession. The next step was determined by the surprisingly common practice in Greece whereby poets sought to obtain prestige for their work by publishing it under the names of poets greater than themselves. So these humble but earnest poets of the mysteries cast about for a name which should give authority to their work" (p. 295).

The discussion of the evidence of Ion and Epigenes (pp. 109-119) and the analysis of the Orpheus-Musaeus relationship (pp. 123-140), with the consideration of the graphic evidence of the vases and gems, are the most successful parts of the book. The author's appreciation of the critical attitude of many Greek writers from the fifth century onwards towards the authorship of early poetry in general and Orphic writing in particular is very illuminating. If there is a criticism of this part of the book it is this: that there is not sufficient weight given to the hieratic character of the writing. It is, of course, precisely Linforth's point that this should not be over-emphasized, since he believes that the mysteries were only very loosely held together. Still, the following suggestion seems relevant to the discussion.

Phrases like Clement's τὰ εἰς Ὀρφέα φερόμενα, apropos of Onomacritus (p. 110), Ion's ἐνία ποιήσαντα ἀνεγκεῖν εἰς Ὀρφέα, apropos of

<sup>9</sup> Though, as Linforth notes, Philoponus does not actually give Aristotle as his authority.

Pythagoras (p. 111),<sup>10</sup> if we take our lead from Ion and Epigenes, where four well-known Orphic poems are attributed to Pythagoras, may lead us to the conclusion that Pythagoreans played the important part in the writing called Orphic (cf. pp. 112 ff.). In other words, there may be a positive meaning in the word, rather than a negative one. It is not so much "a transparent fiction" (p. 304), or a question of deception or false attribution, as it is of acknowledgment of something common and fundamental ranged under the name of Orpheus and Orphic. The word means and its associates mean, then, perhaps, what Ion says it means, that Pythagoras "referred to Orpheus." Therefore, even Iamblichus and Proclus (pp. 250 ff.) in the story of Orpheus, Aglaophamus and Pythagoras are following an ancient tradition. Where Aglaophamus entered it we do not know, but, surely, he was not a creation of Iamblichus.

The ascription of the bean-taboo by Didymus to Orpheus is an interesting illustration of the point (pp. 152-154).<sup>11</sup> Heracleides Ponticus shows us that one of two verses attributed to Orpheus by Didymus existed in the fourth century B.C. Plutarch quotes the verse in discussing Orphic and Pythagorean doctrine; Clement refers it specifically to Pythagorean. Diogenes Laertius who, as Linforth notes, may well be using Pythagorean material, makes the taboo general in the mysteries. Pausanias refers to beans in Eleusinian and so-called Orphica. Gellius refers the first of the two verses to Empedocles, influenced, he says, by Pythagoreanism, and Callimachus refers it directly to Pythagoras. This confusion of authorship and context, Orphic, Eleusinian, Pythagorean, the mysteries in general, leads Linforth to question the appearance of these verses in an Orphic poem, and therefore to throw doubt on a bean-taboo as an element in Orphism.<sup>12</sup> But is

<sup>10</sup> Also Aristotle's ἐν τοῖς καλουμένοις Ὀρφέως ἔπεσιν (p. 151), and even Herodotus' τοῖσι Ὀρφικοῖσι καλεομένοισι (p. 39).

<sup>11</sup> The author recognizes the fact that the followers of Orpheus from an early time practised taboos. Indeed, it is this aspect of the tradition appearing first in the much-debated Herodotus passage (pp. 38-50) and reappearing in the *Hippolytus* (pp. 50-60), and in later authors, which renders the case against an Orphic religion most troublesome.

<sup>12</sup> I do not follow the author's statement . . . "the attribution to Orpheus is not found until after the fourth century A.D." (p. 152), when, as he notes, Didymus makes the attribution.



it not just such a sequence as this which, under Linforth's own schooling, we should learn to recognize as peculiarly Orphic, in the limited sense of the term? That is, dedicated to Orpheus, common to the mysteries, perhaps written down by Pythagoreans. Didymus refers his quotation to the ἔπη of Orpheus. These we should say were written not by any "musaeus" (p. 128) but like τὰ εἰς Ὀρφέα φερόμενα, perhaps too like the πολλὰ γράμματα of Euripides (pp. 119 ff.), or the βιβλῶν δὲ ὁμαδος of Plato (pp. 77 ff.), by intimates of the mystery religions.

Such criticisms of Linforth's findings do not prevent one from accepting and welcoming the greater part of what he has to say. He cuts the study of the mystery religions, and particularly Orphism, free from the sentimentalization which has overgrown it at intervals throughout the Christian era. Any student of the literature who starts with the rather grandiose assumptions made commonly in handbooks, or indeed incorporated by distinguished scholars,<sup>12</sup> will be struck by the wide discrepancy between these imaginative conceptions and the reality of the texts.

BRYN MAWR COLLEGE

ALISTER CAMERON

ROMAN PORTRAITS: A PICTURE BOOK. Series I and II. Pp. 4 and 4, illustrations 51 and 64. New York, The Metropolitan Museum of Art, 1941. \$0.25 each.

These attractive little volumes are both an important contribution to the study of Roman portraiture and a welcome departure from the custom of illustrating only the more valuable portions of a collection in publications intended primarily for the general reader. In *Roman Portraits Series I and II*, the Metropolitan Museum's fine collection of sixty-six Roman portraits is made available in its entirety.<sup>1</sup> All students of ancient portraiture will be grateful to Miss Richter for placing at their disposal in such convenient form a group of portraits of such uniformly high quality. If ever a short cut is to be found to the distant and laborious goal of *Griechische und Römische Porträts* and the *Einzelstudien*, it will be reached, in the reviewer's opinion, through the multiplication of volumes like these.

Series I reproduces in twenty pages of collotype

<sup>12</sup> See A. Toynbee, *A Study of History* i, 99, who uses the phrase "Orphic Church."

<sup>1</sup> The interesting collection of tiny faience portraits of Roman date in the Metropolitan's Egyptian department are not included.

plates the portraits of the period from 100 B.C. to 100 A.D. These two centuries are represented by twenty-eight portraits reproduced by fifty-one illustrations. With few exceptions the illustrations of both volumes are excellent, permitting the observation of minute detail in spite of their small size. The size of the illustrations ranges from  $1\frac{1}{16}$  by  $2\frac{7}{16}$  inches (4.5 by 5.65 cm.) to  $2\frac{1}{4}$  by  $3\frac{1}{2}$  inches (6.5 by 8.8 cm.). Two views, front and side, are given of all but four heads (Nos. 4 and 16), which are either sepulchral reliefs or heads broken from reliefs.

Series II similarly reproduces the portraits dating from 98 to 337 A.D. Thirty-eight portraits of this period are found in the Metropolitan collection. They have been reproduced by sixty-four illustrations of the same range and size as those appearing in Series I. Two views are given of all but Nos. 6, 19-21, 26-29.

In an admirable preface to the plates of each volume, Miss Richter illustrates the changing styles in Roman portraiture by reference to the portraits in the Metropolitan collection. They serve both as commentaries to the plates and as a brief and excellent account of the history of Roman portraiture.

Measurements are listed for each portrait. Since the format was probably too small to permit the listing of more than one measurement, only the over-all height of the portrait is given, but information concerning the height of the face, measured from fixed points, would have been welcome also.

The provenience of approximately one-third of the portraits of the Metropolitan collection is known and recorded. Rome and its immediate environs are listed as the place in which thirteen of the portraits were found; four come from various points of Italy; three from Greece and the islands; and one each from Egypt and Spain. In a group of sixty-six portraits of an individual emperor the provinces would have more numerous representation. But even in the Metropolitan's collection the well-attested importance of Greece as a center of production of imperial portraiture second only to Rome is discernible.

HUNTER COLLEGE

MERI WETHER STUART

PUBLICUM PORTORIUM ILLYRICI, by Árpád Dobó. *Dissertationes Pannonicae*, Ser. II, Fasc. 16; reprinted from *Archaiologiai Értesítő*, Ser. III, Vol. 1, 1940. Pp. 4. 7 pengoe.

Here is a brief but useful study (in Hungarian, with Italian summary), containing a discussion of



the development of the organization for the collection of customs in Rome's Danubian provinces, of the personnel involved, and the location of the various stations. Students will thank the author particularly for the convenient lists he has made of the evidence for the major and minor officials and for the locations of the stations. An appendix gives the texts of 101 inscriptions relating to his subject. Of special interest is the dating under the Antonine emperors of the change from the management of *conductores* to that of *procuratores*, i.e. from contractors to officials directly responsible to the emperors. The problem whether the numeral VIII in no. 29 refers to divisions of the large Danubian customs area seems to remain unsolved, though the analogy of the *III publica Africae* is perhaps the best. The author has made a contribution of value to our knowledge of the organization of the system of indirect taxation within the Empire.

T. ROBERT S. BROUGHTON

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THE SOCIAL BASIS OF ROMAN POWER IN ASIA MINOR, by Sir William M. Ramsay. Pp. xii+305. Aberdeen, Aberdeen University Press, 1941. 10 sh. 6d.

The present volume is the last work from the pen of Sir William Ramsay, the leader and teacher of two generations of students of the antiquities of Asia Minor. It was left unfinished at his death, and Professor J. G. C. Anderson has seen through the press a first part which was already in proof, and portions of a second which was in preparation.

The material in the work centers chiefly about a problem of considerable interest and importance: how did Rome win the support of the native population of Asia Minor and assimilate it to herself? The author holds that the members of the leading families of pre-Roman times maintained their hold continuously upon their people into the Middle Ages, and that Rome's method was to give them Roman citizenship and eventually to advance them to the imperial nobility. This thesis has been advanced before, both by the author and by others, but so far no attempt has been made to elucidate it by means of a thorough collection and interpretation of the documents. The author limited his discussion to regions of the plateau of Anatolia, to the conditions of which his remarks have special relevance, but was unable to complete his plan. He has given us, however, a great deal: his text and interpre-

tation of some 303 inscriptions, a number of them from his notebooks and previously unpublished, selected in order to illustrate family histories, or to suggest gifts of citizenship to Anatolians by emperors or imperial officials. There are also numerous remarks by the way on topography, religion, and local customs.

Students of Asia Minor will gain much from this book, but must use it with caution. The bold and impatient imagination of the author, his strength in much of his work, ventures upon uncertain restorations, as in nos. 53A, 153, 238, and hazardous suggestions, such as that Varus (Ouaros) may be an Anatolian name (p. 14) or that Peregrinus (p. 158) in an official date is not a proper name. Derivations are sometimes fanciful, such as Hyrgaleis (p. 77) from *ἡργάλοι*. On p. 112 mention of *CIL* 3.5337 is apparently a mistake: it is a Norican inscription and seems to have no connection with Nysa. Recent research frequently remains unnoticed. The author continues to place Parlais at Bey Shehir (pp. 24, 154), although it is surely to be placed at Barla, west of Lake Egerdir (Jones, *Cities East. Rom. Prov.*, 143, 557; L. Roberts, *Études Epig. et Philol.* pp. 265 ff.). He takes no account (p. 172) of Gwatkin's study of the Roman procuratorial province of Cappadocia; and in his discussion of imperial estates makes no reference to the work of Tenney Frank or the present reviewer. But against these defects we may place much that is valuable, many *obiter dicta*, and the full collections of material on Comana of Cappadocia, on Colonia Lustra, on Isaurikan soldiers, and on officials at Synnada. The whole bears the characteristic stamp of its author.

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OPUSCULA ARCHAEOLOGICA. Ed. Institutum Romanum Regni Sueciae. Vol. II, Fasc. 1 (Skrifter utgivna av Svenska Institutet i Rom V, 1—Acta Instituti Romani Regni Sueciae V, 1). Lund, C. W. K. Gleerup, 1939.

The plan of publication adopted by the Swedish Institute in Rome was a very sound one. It called for adapting the character of publication to the material. Comprehensive monographs were published separately, articles in special volumes of *Opuscula*. Uniformity in format and printing was maintained, but no attempt was made to publish at regular intervals. Mere notes and space-fillers were excluded.

The volume under review contains four articles on Greek and Roman archaeology. E. Jastrow's articles on Remoulding and Change of Types (Typenwandlung) in Ancient Terracottas opens a new approach to the problem of mechanical reproduction as applied to ancient terracottas. The methodical value of this essay lies in the proof that in dealing with certain categories of ancient terracottas, technical criteria may be more productive of results than stylistic considerations. Diminished size, blurred forms, and deteriorated quality of many terracottas are the result of repeated re-casting and re-moulding: a cast B taken from the original relief A is used for production of further reliefs C: an example of type C may in turn be cast and supply the mould for the next series of reproductions, and so *ad infinitum*. As this copying process is repeated, the figures or reliefs decrease in size because of shrinkage of clay when dried and baked. This decrease is often compensated for by free-hand additions. Thus a series of the same type may be arranged according to diminution of size and deterioration of quality. The author intimates that it may be possible to distinguish imported models from local re-casts and copies standing close to the original mould from those several times removed. South Italian *arulae* form the starting point of this investigation, but the same procedure of copying has been observed in numismatics and in the study of lamps. The author adds a survey of many kinds of terracottas which could be examined for the technique of re-moulding: Calenian vases, Arretine and sigillata wares, terracotta reliefs from Praesos, Melian and Locrian reliefs, Campana reliefs, Tanagra figurines, and Myrina figurines are briefly surveyed. The observation of diminution and shrinkage could, indeed, be worked out for any kind of mould-made ware (plastic vases; Etruscan bucchero; perhaps even ancient glass), but the formidable task of examining and measuring all available specimens of each type calls for a devotion to patient, exacting research, and an ability for technical observation which make Jastrow's article a Classic in its line.

An interesting problem touched upon in this article concerns moulds taken from originals in media other than terracotta. New evidence for the use of this process has been brought forth by G. M. A. Richter in her publication of a Greek silver bowl of the fifth century, a piece which helps us visualize the probable originals on which Calenian bowls of the third century B.C. were modelled.

(*AJA.* xlv, 1941, pp. 375 and 383 ff.). Jastrow also suggests that some Roman terracotta reliefs were made from casts of Neo-Attic marble reliefs. Yet there are, of course, many instances of identical types being used in media so diverse as to preclude any idea of mechanical copying; for instance, the same series of Seasons appears on glass vases of the first century B.C., on Arretine vases, on Campana reliefs, on marble sarcophagi of the second century A.D., and even on gems. The relation of mechanical and non-mechanical copying in antiquity might make a rewarding subject for a study which would also throw light on the attitude of the various phases of ancient culture toward the problem of industrial mechanical process versus handicraft.

Another interesting problem, which we hope to see discussed in Jastrow's *Corpus of Italian Arulae*, is the length of possible survival of one type. The author indicates that ritual reasons may have been instrumental in bringing down much earlier types to the tombs of the Roman cemetery on the Esquiline. As Ryberg says (*An Archaeological Record of Rome*, Philadelphia, 1940, p. 157), "it is probably not accidental that archaic types were found in burials of the IV-III centuries and that well-known types of the fourth century were discovered in several places with material of the third century or later." But would a survival of several centuries be the rule for those terracotta figurines which appear to have no religious connotations? How long could they outlast the style to which their "original" belonged? These are some of the questions raised by the article which is rich in suggestive problems.

"Built Tombs in Cyprus" is the title of an article by A. Westholm. He designates as "Built Tombs" tombs in which masonry was used in addition to rock-cutting. The list contains some forty tombs at Amathus, Tamassos, Kition, Enkomi and other sites. Four types are distinguished: partly "built," partly excavated chamber tombs; tombs entirely or partly built of rubble and entered through a rock shaft; tombs built of dressed though irregular masonry in which dromos and chambers are aligned; and tombs of ashlar masonry, with a central and two or four lateral chambers. The earliest of these tombs date from the Late Cypriote Bronze Age, the latest may belong to the Roman period. Westholm points out that shaft tombs, corbelled roofs, and ashlar masonry are features imported into Cyprus from North Syria, where similar tombs are found before the

middle of the second millennium B.C. and continue into the Iron Age (Ras el Ain and Ras Shamra). This Syrian influence affected the Southeast of Cyprus, not the Northwest, where Mycenaean influence prevailed.

The author refers to the early development of tomb construction in Etruria as being similar to that in Cyprus, but, misled by Åkerström, he does not attempt to relate these two developments. Yet the Cypriote tombs bridge the gap between the tombs of the second millennium in Ras Shamra and the early Etruscan tombs of the Regolini Galassi type. We find the same technique in the Cypriote tombs as in the earliest Etruscan chamber-tombs: a combination of rock-cutting with masonry (Tomba Campana and other tombs). We find the same corbelled vaults. Indeed, the mixed technique of rock cutting and masonry construction was probably used in the earliest Etruscan houses, as this reviewer has pointed out (*Journal Amer. Soc. Archit. Hist.* iii, 1942). The most important argument against a spontaneous development of these features in Etruscan architecture is the complete lack of masonry construction of any kind in Central Italy prior to 700 B.C. Though a case may be made out for early influence of Cyprus upon Tuscany (G. Hanfmann, *Alt-Etruskische Plastik*, Würzburg, 1936, p. 107; E. Gjerstad, *Konsthistorisk Tidskrift* ii, 1933, pp. 51 ff.), the architectural similarities could also be explained on the assumption that the Etruscans had immigrated to Italy from a land that had undergone the same influence of Near Eastern architecture as Cyprus. The Cypriote tombs show that knowledge of stone construction, and of corbelled vault was applied to rock-cut tombs throughout the transitional period (1100-700 B.C.), though the general lowering of technical standards during the Greek Dark Ages makes the earliest Etruscan and Cypriote walls look shabby by comparison with the splendid structures of Ras Shamra.

N. Valmin publishes a building found by him near Mt. Vasiliko at the crossing of the roads from Upper Messenia to Soulima Plain and from Andania to Soulima. The rectangular, two-storied building with strong walls contained three long rooms (stables? storage rooms?) and a sequence of four smaller rooms, all grouped around a rectangular courtyard. Valmin interprets the building as a frontier post and argues that the inscriptions found, especially a sherd inscribed *Eutres-(iou)*, prove Arcadian occupation of the Soulima

Plain in the late sixth and early fifth centuries B.C.

G. Säfslund suggests that Ionic influence reached Italy from two centers in the late archaic period. The North Ionian region (Larissa and Clazomenae) was exercising an influence upon the art of Latium and Tuscany, while South Ionia (Samos and Miletus) was responsible for the artistic impulses transmitted to Sicily and Southern Italy. This is a valuable working hypothesis, but when Säfslund proceeds to postulate that a wave of "Ionic or Ionizing" temples preceded the Doric temples in Southern Italy, he is on uncertain ground. The temple at Caulonia, which Säfslund dates in the late fifth century, was certainly Doric, but Säfslund believes that it must have been preceded by an Ionic temple because three terracotta simae found at Caulonia may show Ionic motifs; and according to Säfslund, Ionic terracotta simae cannot belong to the Doric temple which had a roof covered with marble tiles. Yet two of the simae, adorned with flaming palmettes, could well date from the late fifth century and would thus have formed part of the decoration of the Doric temple.

Säfslund's theory is based upon the dangerous assumption that Doric and Ionic temples of the archaic period were canonically pure. Actually, considerable experimentation was going on during the sixth century even in Greece proper. In the South Italian colonies, exposed to varied influences, heretical experimentation and bizarre forms may well be expected. In the Heraeum of Lucania the temple, as well as the "tempietto arcaico," shows strong Ionic influence (NS. 1938, pp. 262 and 270), as Säfslund is constrained to admit. But the height of indifference to purity of orders is reached in a building represented on a Locrian relief, for this temple boasts Ionic columns and Doric triglyphs (P. Zancani-Montuoro, *Palladio* iv, 1940, pp. 59 f., fig. 1). It is certain that South Italian architecture of the late archaic and the early Classical periods experienced an infiltration of Ionic elements, but the major elements of the buildings usually remained Doric. Säfslund may well be right in claiming that Ionic influence started shortly after the middle of the sixth century, earlier than has been usually assumed; but the existence of numerous Ionic temples remains to be proved, whereas the existence of hybrid architectural forms is certain.

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## THE DOG-BIRD SENMURV-PASKUDJ, by C. Trever.

Pp. 71, figs. in text 11. Leningrad, The Hermitage Museum, 1938.

This short essay was first published in Russian in 1933 in the *Recueil* dedicated to N. J. Marr. This apparently accounts for the abundance of references, relevant and irrelevant to works of Marr, a circumstance which certainly will strike the reader. The identification of the well-known figure of the Sassanian dragon with a peacock tail, known from the archaeological evidence, with the fabulous bird Saēna mereyō of the Avesta, or Senmurv of the Mēnōk-ē-xrat and of the Bundahishn, is the main idea of the book. Miss Trever was the first who dared to suggest this evident identification of Simurg and to refute the naturalistic ostrich theory of Herzfeld. Miss Trever's booklet is divided into two parts. The first deals with the interpretation of literary sources (pp. 3-32), and the second (pp. 32-65) is devoted to a description of some of the most important representations of the Sassanian dragon.

While the Saēna-mereyō-Simurg is merely mentioned in the Avesta (Yasht 14 and 12), its place in Iranian mythology is indicated in the Mēnōk-ē-xrat—a late Sassanian compilation: Senmurv, according to this treatise, sits on the sacred tree and scatters the seeds that cure evil on the earth. There is, however, no description of the physical appearance and of the nature of the Saēna bird. The main evidence for the identification of Senmurv with the Sassanian dragon and for its nature will be found in a very contradictory and obscure text of the Bundahishn. Miss Trever tried to explain the confused definition of Senmurv in Bundahishn by the suggestion that this definition is the result of the disintegration of the original cosmological conception of the mythical bird. In the Bundahishn the Senmurv appears as a bird of three natures, and—in the same passage—as created of three species: dog, bird, and the musk animal, i.e. Senmurv appears as a composite monster. Trever distinguishes here two different aspects: "The Sen of three natures is undoubtedly a purely cosmic concept, suggesting connection between upper, middle and lower heaven, i.e., it is, using Marr's term, a tripartite 'child of heaven,' whereas the Sen of three species (sartak) is a creature characterized by the features ascribed to it, which make it resemble the real dog and bird in appearance and the musk animal in habits" (p. 14). Later in Shahnama, Simurg underwent a third transformation. This

"new conception resulted from the development of some of the elements of the old Senmurv and the mixing of these elements with the features of the other fabulous bird (in this case without the elements of the dog), imported, perhaps, by the Arab conquerors. In fact, if we confine ourselves to the written records, we lose trace of the dog-bird in the subsequent period" (p. 18). Thus Miss Trever distinguishes the Simurg of Shahnama, i.e. of Persian, Armenian, and Kurd tales from Senmurv of the Sacred Books.

The name "Saēna" as it occurs in Avesta, is a proper name of this fabulous bird. Trever insists that "Saēna" should be translated as "dog," respectively "dog-bird," a "name which originated in a dialect that was different from one that gave rise to the language of the Avesta." For a parallel to this she refers to the existence of a similar ligature Paskudj—"bird-dog," which was discovered by Marr in the "Japhetic" language. This is, however, a purely philological problem.

"Connected with cosmogonic ideas the conception of Senmurv must have been formed long before it was first represented in art and still earlier than it could acquire any canonical forms" (p. 25). "At the time of the first representation in art of such a complex monster as we are dealing with a considerable influence determining ways for solving the problem must have been exercised by the word, or name, applied to the monster" (p. 30).

As regards the representations, with the exception of two Greco-Scythian figures of a monster more or less related to the Senmurv, all the examples quoted by Miss Trever are products of late Sassanian and post Sassanian art, toreutics especially, textiles and sculpture. Eleven poor reproductions illustrate the descriptive part of the book. Unfortunately, Miss Trever does not attempt to date most of the representations.

Miss Trever distinguishes two types of the Sassanian dragon-Senmurv: the first, as represented on a Sassanian silver dish of the Hermitage collection, has a bird's tail, but not yet a peacock's tail; the second "canonical" type has a peacock's tail.

The general idea of Miss Trever's book seems to be quite correct, but still many questions arise in connection with the problem. The "milieu" in which the conception of the fabulous bird originated, was probably not limited to the Iranian or Caucasian civilization. A similar bird, Syena,



with a similar mythological function, is mentioned in the Vedas. This was pointed out a long time ago by Casartelli ("Çyēna-Simourg-Roc," *Comptes rendus du Congrès scientifique international des Catholiques*, Paris 1891). As to the early conception of Saēna in Iranian mythology and the composite nature of this monster, our early literary sources do not supply any evidence. The only evidence for this conception is Miss Trever's hypothesis that Saēna means "dog." The Bundahishn, composed in the post-Sassanian period, is utterly confused. Sen of three natures appears here as the first among the birds (Justi XIV and XXXI), and later in a special group of night flying animals, together with the bat. The following description apparently has in mind rather a bat than Senmurv: "it flies like a bird, has many teeth like a dog, and is dwelling in holes like a musk animal." We must keep in mind, that Saēna of the Mēnōk-ē-xrat is described as dwelling not in holes, but perched on the sacred tree.

Therefore, while the Bundahishn apparently preserved a trace of the ancient mythological cosmology, it thoroughly rationalized this cosmological conception. It is evident that the author of this work was embarrassed as to how to place the Saēna bird; finally it was placed in three different groups, but especially in the bats' division, evidently under the influence of zoological considerations. The chief aim of the author of the Bundahishn was probably not to clarify the primary conception of Saēna, but to explain the well known figure of the Sassanian dragon by identifying him with Senmurv. It seems that the Bundahishn text was influenced by the already existent representation of Senmurv, and not *vice versa*.

I would like here to take the opportunity to present a few remarks about the representations of the Simurg in art. The earliest example quoted by Miss Trever—of the sixth or fifth centuries B.C.—is the monster represented on the sword sheath of Elisavetovskaya (fig. 1). It is a protome of a winged eagle griffon with a fish's, not a bird's, tail. As it has neither the elements of a dog's head, nor a bird's tail, it cannot be identified with Senmurv. In fact, it is a curious mixture of Babylonian and Greek elements. The second representation of about the same time (fifth century B.C.), that on a golden plaque from one of the Semibratny tumuli, is very confused (M. Rostovtzeff, *Iranians and Greeks in South Russia*, pl. XIII D): it combines the protome of a dragon (possibly a dog) with highly stylized wings transformed into a

Scythian bird's head ornament; in the place of a tail is a bird's head with a long neck. Apparently this combination is a confused local imitation of an unknown Babylonian monster with a scorpion's tail changed into a bird's head.

Babylonia was the main source of all composite monsters, and it is quite possible that the bird of three natures took its shape under Babylonian influence. The fragment of Berossus ("Babyloniaka" in Eusebius, C. Müller, *FHG.* ii, p. 497) yields some information about the Babylonian monsters, which continued to exist in the third century B.C. Among them appears a dog composed of four elements (τετρασώματος), with fish's tail.

The list of representations of the Sassanian dragon given by Miss Trever is not complete—the number of known representations could be easily doubled. Omitted, for example, are the very interesting representations of Senmurv which appear on the ivory box from Würzburg (A. Goldschmidt und K. Weitzmann, *Die byzantinischen Elfenbeinsculpturen* i, Nos. 106, 107, pl. LXI, LXII, O, and a similar one from the Czartoryski Museum Krakow (S. Komornicki, *Museum Czartoryskich w Krakowie*, No. 232).

The Sassanian dragon appears more than 1000 years later than the Elisavetovskaya griffon and the Semibratny dragon. Unfortunately, the author has not attempted to trace the formal development of the dog-bird. One wonders why Miss Trever never mentions one very interesting occurrence of a similar monster (dog-bird or camel-bird) very well known to her (C. Trever, *Monuments of Greco-Baktrian Art*, pl. 19). This particular specimen is represented on a silver bowl from the Hermitage, assigned by Miss Trever to the first century A.D. Even if Miss Trever's date would be changed to the second century A.D., the monster of the silver bowl is the earliest instance in Iranian art of the mythological bird. The function performed by this monster in the wedding ceremonies depicted on the bowl is rather significant—it bears the crown over the head of the king, i.e. it replaces one of the Iranian genii, Hvarenah or Vereθrayna. It may be of interest to recall here the suggestion of Hertel, who regards the seventh incarnation of Vereθrayna in a bird Vāregna as identical with Saēna (J. Hertel, *Yāšt* 14.16.17, p. 180, footnote 6).

Although the archaeological material used by Miss Trever is sometimes difficult to date, it is significant to find the dog-bird represented twice on an exactly dated monument: the statue of



Chosroes II (590-628) in Tak-i-Bostan. The representation of Senmurv on such an official monument suggests that the choice of the dog-bird by Chosroes for his dress was the starting point of the expansion of the "canonical" type of the Sassanian dragon.

In the history of the formal development of the monster under review the most fascinating problem is the peacock tail of Senmurv. Miss Trever furnishes no explanation. I may suggest that a careful study of the Indian Garuda might help to solve this question. But Miss Trever is "putting aside both the Indian Garuda and the birds Rukh and Anka of the Arabs, which performed the same functions as Senmurv."

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N. TOLL

CONTRIBUTIONS TO THE ARCHAEOLOGY OF THE ILLINOIS RIVER VALLEY, by *Frank C. Baker, James B. Griffin, Richard G. Morgan, Georg K. Neumann and Jay L. B. Taylor* (*Transactions of the American Philosophical Society, New Series, Vol. XXXII, Part I, November, 1941*). Pp. 1-209. \$3.00.

When the plans for the Chicago World's Fair of 1893 were taking form, Dr. Warren King Moorehead was one of the group selected to gather collections illustrating the prehistory of the Americas. From that time up to within a few months of his death, he maintained an active interest and participation in archaeology. While he is perhaps best known for his work in Ohio and Georgia, he had an equal interest in Illinois and it was largely due to his untiring efforts that the great mound group at Cahokia was saved from destruction and made into a state park.

During 1927-28 he conducted a survey of the lower Illinois River valley and under his direction excavation of strategic sites was undertaken by Mr. Jay L. B. Taylor. A few months before his death he began the preparation of this report, but failing health caused him to place the final editing in the hands of Richard G. Morgan of the Ohio State Museum and James B. Griffin of the University of Michigan Museum. To these competent young archaeologists goes most of the credit for editing the field notes gathered under Dr. Moorehead's direction and interpreting them in the light of recent archaeological developments. The large collection of animal bones found in the Indian sites is systematically reported by Frank C. Baker of the Natural History Museum of the University of Illinois, while Georg K. Neumann

of the University of Michigan has added a short but significant study of the human skeletal materials.

This co-operative effort has resulted in an important publication which serves as a fitting memorial to the life and work of Dr. Moorehead.

Part I gives details of sites and areas explored; the results of excavation, as well as a complete record of the materials found. On the basis of such data the cultural affiliation for each mound is discussed. This is done with precision, yet without the introduction of any unnecessary details.

Finally, the editors present a few general conclusions or "speculations." They find that the majority of the sites reported by the Moorehead survey of the lower Illinois Valley belong to or are related to the Hopewellian phase. They found them in increasing frequency from the mouth to the central portion of the river and in lesser numbers as they go north. The relationships of these sites to other Hopewellian manifestations are brought out and pertinent publications are cited.

Certain burial sites investigated revealed the presence of the Middle Mississippi phase in the valley. The fact that so few were cited by the survey was probably due in part to Dr. Moorehead's deep interest in Hopewell. However, the editors note the wide spread and importance of this cultural manifestation in Illinois. Two Woodland sites related to the Maples Mills focus are also reported.

For the materials presented a time sequence is suggested, with the Hopewellian peoples occupying and leaving the valley before the advent of the Middle Mississippi. The Maples Mills focus appears to be very late, yet to have had contact with and to have been influenced by the Middle Mississippi peoples. Thus the analysis serves to confirm the generally accepted series of events in the area, except that the sites reported failed to reveal certain manifestations which appear to antedate Hopewellian.

All students of Mississippi Valley archaeology will be grateful to the American Philosophical Society for making available this valuable contribution to the prehistory of Illinois.

UNIVERSITY OF CHICAGO      FAY-COOPER COLE

LANDA'S RELACIÓN DE LAS COSAS DE YUCATÁN.

A translation edited with notes by *Alfred M. Tozzer* (Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University. Vol. XVIII). Pp. 394. Peabody

Museum of American Archaeology and Ethnology, Cambridge, Massachusetts, 1941. Cloth, \$6.25; paper, \$4.75.

Most students of the ancient Maya will recognize this publication as the most important single volume in their field. Indeed it is, so to speak, the two most important works in their field: the best edition (certainly for English readers) of the most important historical source; and the indispensable handbook of information on that ancient people.

The paramount importance of this source lies in the fact that it describes the land, customs and calendar of the Indians of Yucatan as they were observed by the second bishop of Yucatan, only seven years after the Conquest, and as they were described to him by intelligent Indians, two of them sons of chiefly families, who had reached maturity under the old order which Landa and his compatriots came to destroy. It is relatively more important in its field than is Sahagun to students of the Aztecs, for Sahagun's account is supplemented by many others (less full), while Landa's report stands nearly alone; there is no other early work that contains an approximately systematic account.

Previous to this publication there have been seven editions of Landa. None of them has been provided with notes and other aids to study of the scope and scholarly detail exhibited here. The one prior English translation, that of Gates, published in 1937, is superior only as a piece of printer's art; as a work of scholarly reference it cannot compare with Tozzer's edition. The present work includes all the original illustrations which Landa provided and a concordance of this edition with all the others. The only element missing to make this a completely self-contained *Landa* is the original Spanish text, and this possible need is lessened by the accuracy of the translation.

The work has been made a handbook of the ancient Maya by the addition of several features, each carefully prepared by the editor and each an outcome of the editor's long career as a leading student of the Maya. The footnotes taken together amount to a work on Maya society, culture and history; they incorporate knowledge derived from archaeology, from other documentary sources, and from modern ethnology, and they are rich in information and wise in critical judgment. To answer most doubtful questions about the Maya, the student will find himself beginning with what Tozzer's *Landa* has to say on the subject.

Most original, and very valuable, is an index in syllabus form. A systematic topical inventory of Maya life is provided with page references to passages relevant to each topic and subtopic. This device is supplemented by an index of the usual sort; this is exceedingly well constructed. There are four appendices consisting of the translations of four well-chosen early Spanish documents containing information on the ancient Maya culture, and there is a good selected bibliography. Altogether this equipment of research aids sets a new standard in the field of Middle American research. Scholars will long be grateful to Dr. Tozzer and to the organizations that made the work possible.

UNIVERSITY OF CHICAGO ROBERT REDFIELD

THE HYMN TO DEMETER AND HER SANCTUARY AT ELEUSIS, by *George Emmanuel Mylonas* (Washington University Studies, New Series, Language and Literature, No. 13). Pp. xii + 99, figs. in text, 5. St. Louis, 1942. \$1.00.

Professor Mylonas dedicates his book to the distinguished Greek archaeologist Konstantinos Kourouniotes, whose excavations at Eleusis, published in part, advanced our knowledge of the sanctuary area considerably beyond the state represented by Noack's *Eleusis*. It is now known that the great rectangular hypostyle Telesterion, with which all visitors to the site are familiar, was preceded by two constructions, an anomalous elliptical building of the late Geometric Period and a megaron type structure of the Second or Third Late Helladic Period. It is a not unreasonable assumption that both of them were of a religious nature, although no cult objects were found with either, and that they carry back to Mycenaean times the worship on that spot of a fertility goddess, known to history as Demeter.

Professor Mylonas took part in Kourouniotes' excavations, and in the present volume he searches the Demeter Hymn for topographical data with which to identify points in the area. Much of this is tilting with Noack, but Noack had not Kourouniotes' data, and in general, it must be admitted that the Hymn has little topography to contribute. Celeus' palace was of the Mycenaean type, doubtless, but there is nothing to show that the author, Eleusinian or not, knew of it from personal observation. It is unlikely that Homer had seen the palace of Priam, or even that of Odysseus or Menelaus. (Is it possible that some have taken too seriously Demeter's claim to have come from Crete? Odysseus said something of the

same sort under similar circumstances, but no one believes him.) There is the Parthenion well, near the road presumably in the direction of Athens and Thoricus. (Mylonas has sound things to say about Pamphos' Anthion well, which must have been on the Megara road; it is connected with the tradition of an Argive Demeter). It was not too far from Eleusis for the women to come for water, and Demeter sat there to see who would come. But there is also a Kallichoron, which was a well in later times, the well at the northeast corner of the greater Propylaea named by Pausanias. If that was a well here, it does not fit the later location, for Demeter ordered Metanira to have the people build her a great temple and an altar before it below the wall of the acropolis on a jutting hill above Kallichoron (or Callichorus, as others take it, without insisting on the well). Now the Telesterion does lie on a spur below the Mycenaean wall of the citadel, and below it is a well, which was filled up and covered by a Late Archaic retaining wall. Is that the Kallichoron, and was Pausanias' well Parthenion, and was the name of the one transferred to the other in later times? Mylonas thinks so, and it is possible.

The Mirthless Stone of the inscription of 329/8

is not mentioned in the Hymn. Mylonas would identify it as the area before the rock-cut platform and steps half way between the lesser Propylaea and the Telesterion entrance.

As to the date of the Hymn, Mylonas is inclined to place it early, on the not quite conclusive grounds that it contains good Mycenaean material about the temple that could have been got only before the construction of the elliptical building in the eighth century while the "great naos" still existed, and also about Celeus' palace, but what we know of Mycenaean palaces comes mainly from Homer, and the author knew Homer too. Anyhow, he was not an archaeologist. I doubt that either argument will have much influence on those who hold for a seventh-century date for the poem, admitted that these things are obscure.

The book is a little long for its argument. Nevertheless it deals with a pleasant subject, the attempt to combine archaeology with literature to win a picture of the Early Age of Greece, and it may well be that Kourouniotes' excavations, being incompletely published in Greek papers, are not widely known. It serves a useful purpose, and we can but be grateful for it.

CAMP LIVINGSTON, LA. C. BRADFORD WELLES

## ARCHAEOLOGICAL NOTES

### THE DANISH EXCAVATIONS AT HAMA ON THE ORONTES

DURING the years 1931-38 a Danish archaeological expedition, sponsored by the Carlsberg Foundations of Copenhagen, Denmark, worked in Syria. The site chosen was Hama on the Orontes, the Old Testament Hamath, and the results have been described in two preliminary reports, one comprising the first campaign,<sup>1</sup> the second the subsequent seven.<sup>2</sup> As few copies of this latter report have reached this country, I am very glad to have this opportunity of presenting a brief sketch of the main finds to American colleagues.

The ancient city site, situated in the northern outskirts of modern Hama, forms a most imposing mound, about 336 m. long, 215 m. wide and 46 m. high. Twelve different levels of civilization were uncovered, ranging in time from the fifth millennium B.C. to about 1400 A.D. and yielding rich material for the reconstruction of the ancient history of the city. Not only did the mound furnish ample evidence of the types of pottery used by the Hamiotes during the long life of their town, but terracottas, objects of stone and of bone, bronzes, ivories, glass, seals, sculptures and mosaics were brought to light in different levels, each helping to shape the face of the civilization in which it was found.

In the third level from the bottom, designated as *K*, some remarkable sculptures were unearthed, of which the best preserved was a head of limestone, probably to be dated about 3000 B.C. (fig. 1). The front of the conical headdress and the face, including the eyes, were covered with a thin layer of plaster, originally enlivened by red paint, of which there are still distinct traces on the forehead and especially on the mouth.

The ceramic "Leitmotiv" of the succeeding level (Hama *J*) was the goblet, the different subdivisions of the level being distributed between the years 2400-2000 B.C. A very interesting series of seal-cylinder impressions was found on the necks of jars. The one illustrated presents a subject of certain appeal to the men of this ancient town, viz. three men in a boat (fig. 2). Human figurines of terracotta now become more numerous, the female ones showing a bird-like face and elongated neck (fig. 3), their male counterparts the same conical headdress (fig. 4) as the sculptured head from the preceding level.

During the years 1950-1750 the city enjoyed a period of steadily rising prosperity, to judge from the wealth of pottery and other finds excavated, not only on the mound, but also below the hill in rock-cut tombs. The favorite kind of pottery was now the carinate bowl, together with vessels decorated with incised or notched lines or bands in relief. A divine triad, goddess, child and god, figures in relief on a pottery stand (fig. 5),<sup>3</sup> and numerous flat-backed terracotta figurines give us evidence of the divinities worshipped in this period. The gods seem mostly to be represented seated,

<sup>1</sup> H. Ingholt, *Rapport préliminaire sur la première campagne de Hama*, Copenhagen 1934.

<sup>2</sup> H. Ingholt, *Rapport préliminaire sur sept campagnes de fouilles à Hama en Syrie (1932-38)*, Copenhagen 1940.

<sup>3</sup> The god can be clearly seen on a replica of this stand.



FIG. 1. — HEAD OF LIMESTONE, LEVEL K



FIG. 2. — IMPRESSION OF SEAL CYLINDER ON NECK OF JAR, LEVEL J



FIG. 3. — FEMALE FIGURINE OF TERRACOTTA, LEVEL J



FIG. 4. — FEMALE FIGURINE OF TERRACOTTA, LEVEL J



FIG. 5. — POTTERY STAND WITH DIVINE TRIAD, LEVEL H

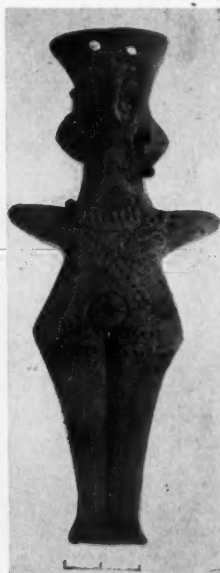


FIG. 6. — FEMALE FIGURINE OF TERRACOTTA WITH BRONZE EARRINGS, LEVEL H



FIG. 7. — MODEL CHARIOT AND CHARIOTEER OF TERRACOTTA, LEVEL H





FIG. 8.—IVORY GOBLET, LEVEL F

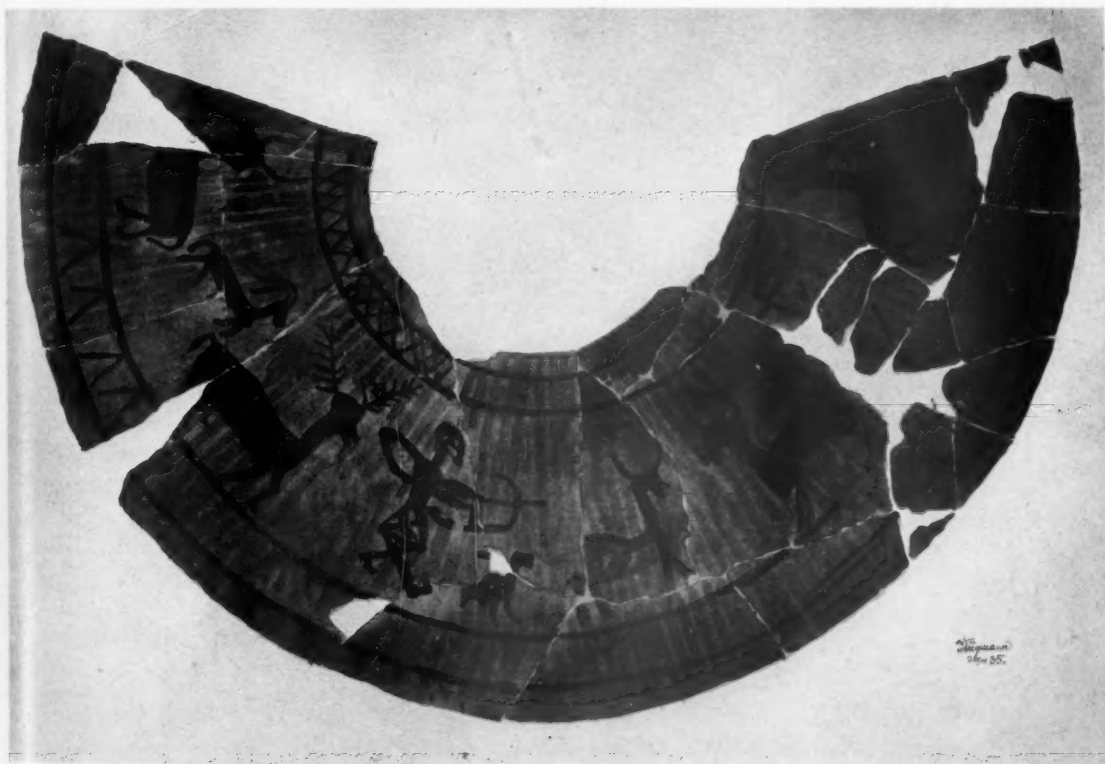


FIG. 9.—HUNTER AND ANIMALS PAINTED ON SHOULDER OF CINERARY URN, LEVEL F

sometimes armed with the "window-axe" characteristic of this level. Much more numerous are the goddesses, most often with the high "Spanish" comb at the back of the head, and flap-ears, to which in one instance bronze earrings were found attached (fig. 6). A chariot with two huge wheels, the charioteer in one piece with the back of the chariot, the reins passing through two holes in the upper part of the front, bear eloquent witness to one of the main military forces of this civilization, Hama H, (Fig. 7).

On excavated sites in Syria there is a marked lacuna from about 1750-1600 B.C.<sup>4</sup> and the same holds true of Hama. A sparse level (Hama G), characterized by thin and elegant pottery forms, can be dated to about 1550-1450 B.C., and then another gap intervenes, lasting until the beginning of the Iron Age, about 1200 B.C.

At this time warlike tribes from the North and the West, the so-called Sea peoples, equipped with powerful weapons of iron, emigrated from their usual habitat to win for themselves new homes in the fertile lands to the South. They must early have established themselves in Hama, where they reigned supreme until ousted sometime during the tenth century by another wave of conquering tribes, the Aramaeans.

The Sea peoples burned their dead, and actually more than 1100 cinerary urns have been found in Hama, deposited in the area below and south of the mound, and brought to light by the expedition under modern courtyards and houses (Hama F). Many interesting objects: swords, daggers, bracelets, fibulae, stamp seals (some with Hittite hieroglyphs), cylinder seals and terracottas had been placed with the burned bones of the deceased. Even a beautiful ivory goblet, dating from about 1100 B.C. (fig. 8), was among the finds. Instead of a handle, the unknown artist carved the front part of a wild goat, executed in a most charming and naturalistic manner. On the shoulder of one of the cinerary urns one of these sturdy conquerors is probably represented, hunting deer of different species with his bow and arrow (fig. 9). On another, a boat is painted, strikingly similar to those of the Sea peoples which figure on the temple walls of Medinet Habu, sculptured at the order of the victorious Pharaoh Ramses III. One of the Hama kings of this time is no doubt portrayed on a stele of basalt, 2 m. 10 in. in height (fig. 10). Seated in front of a four-legged table, he is served by a courtier, or his son, the little scene as if borne and sustained by his royal emblem, the double-headed eagle.

The Aramaeans, who succeeded the Sea peoples in Hama, were Semitic tribes from the desert. For about 200 years they ruled over the river town, a period marked by great material achievement and more military power than at any other time in its history (Hama E). In 720 B.C., however, the Assyrians under king Sargon finally caught up with this independent city state, ruthlessly destroying the town which had dared so long to oppose their growing might. It is from this period that the most extensive architectural remains date: a monumental entrance to the citadel (fig. 11), a temple, the house of an official and a building which probably is to be identified with the palace of the king. The buildings were of mud brick, lined with orthostates of basalt or limestone and reenforced by means of wooden beams placed on the façade or put through the brick massif. A score of basalt lions with

<sup>4</sup> Cf. Albright in *Studies in the History of Culture* (Waldo Gifford Leland Volume), Menasha, 1942, p. 23.



FIG. 10.—BASALT STELE OF KING  
OR GOD WITH DOUBLE-HEADED  
EAGLE, LEVEL F



FIG. 11.—MONUMENTAL ENTRANCE TO THE CITADEL, LEVEL E



FIG. 12.—BASALT LION IN THE ROUND IN PROCESS OF RESTORATION, LEVEL E

wide open mouths and ferocious looking teeth had done their share toward averting the enemy. Some had no doubt been guarding the city for more than a century, when Sargon took it. One, on the other hand, does not seem to be much earlier than about 750 B.C. This is a lion sculptured in the round, the biggest of all those which were brought to light, and when all its many fragments are restored to their proper places, a piece of sculpture will have been recreated, impressive in itself, and of considerable interest in the study of archaic Greek statuary (fig. 12).

Characteristic of the refinement prevalent in material culture are the many ivory inlays from furniture. One fragment shows two griffins fighting fiercely; another, two bulls, their horns locked in deadly combat (fig. 13). The line just under and parallel with the back, the vertical lines on the side and the plaited band along the belly find an exact counterpart in the lions guarding the Kapara palace at Tell Halaf.<sup>5</sup> Beside a small number of cuneiform tablets, several Aramaic graffiti came to light; also some fragmentary inscriptions in Hittite hieroglyphs, and a few graffiti in characters recalling those of the "Phrygian" inscriptions recently found as far north as Boğazköy.<sup>6</sup>

After Sargon's wholesale destruction of the city, centuries were to pass before a new town or quarter of the town rose again on the mound. In Hellenistic time, under Antiochus Epiphanes, the mound was again inhabited, and continued so to be through Roman and Byzantine times, until the city was taken by the Moslems in 650 A.D.

Among the finds from Roman time (Hama C) the most exciting was that of two marble busts of Serapis (the largest, fig. 14), found buried under an Arabic storage jar, together with a marble statuette like those generally called "Aspasia", the only known complete example of this type (fig. 15).<sup>7</sup> In a rock-cut tomb a statue of a goddess occupied the central niche of the back wall (fig. 16).

The black color of the hair and the red tinge of the dress give her a peculiarly life-like appearance. Her costume is Greek—chiton and himation; on the other hand,



FIG. 16.—LIMESTONE STATUE OF GODDESS, LEVEL C

<sup>5</sup> As this ivory probably is to be dated not later than 720 and probably not earlier than about 750 B.C., the above observation is pertinent to the much debated question as to the date of Kapara, cf. Bowman and Braidwood, *AJSL*, lviii, 1941, pp. 359-67.

<sup>6</sup> Cf. B. Ullman in *Classical Studies Presented to Edward Capps*, Princeton, 1936, p. 340; Bittel and Güterbock, *Boğazköy*, Berlin, 1935, pp. 79-80.

<sup>7</sup> Cf. most recently Vagn Häger Poulsen, *Berytus* vi, 1939-40, pp. 7-18.





FIG. 13.—IVORY PANEL FOR INLAY, LEVEL *E*

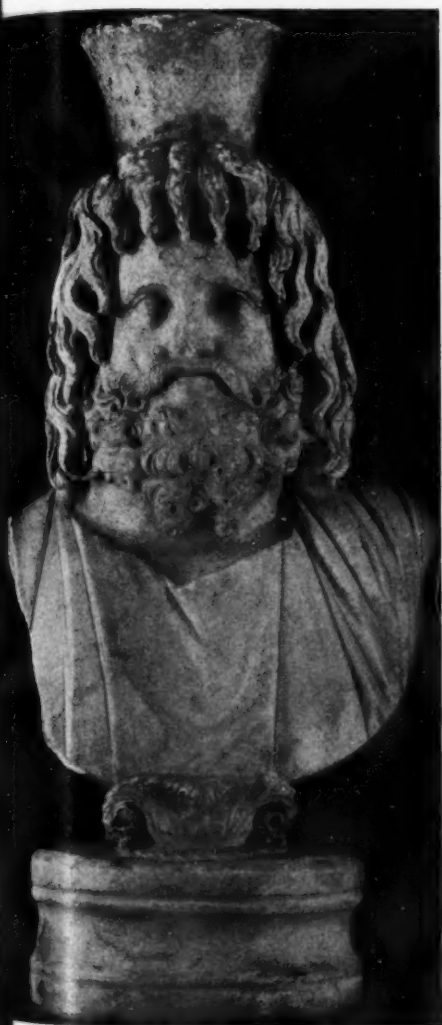


FIG. 14.—MARBLE BUST OF SERAPIS, LEVEL *C*



FIG. 15.—UPPER PART OF MARBLE STATUETTE OF ASPASIA, LEVEL *C*



the unusual coiffure, the elaborate frontal and the two tasselled belt-ends point as decisively towards the Near East.

The latest level, the Arabic (Hama A), was in a way disappointing, as its average depth was between 3 and 4 meters, through which one had to dig before arriving at earlier levels. In return it yielded, however, an extremely rich and varied series of unglazed and glazed pottery and glass, a few pieces imported from Europe, Persia or China, but most of it made in Syria itself. The detailed chronological study of this material is of great promise, thanks to the many coins found in this level. According to them the mound seems to have been occupied in Moslem times from about 950-1400 A.D., but the *floruit* of the level was in the thirteenth and fourteenth centuries, and it is to these centuries that the majority of the Arabic finds belong.

HARALD INGHOLT

## NEWS ITEMS FROM ATHENS

THE report of the excavations carried on at Olympia in the winter of 1938-1939<sup>1</sup> shows that the excavators succeeded in clearing away a large amount of the silt and sand deposited by the river Kladeos in the region of the Gymnasium and Palaestra. The only important new discovery was an entrance into the South Colonnade west of the Palaestra. This may have marked the center of the court of the Gymnasium, but since the river has cut away all the western part, no exact estimate is possible. In the Stadium a resumption of the work uncovered a tribune for the Hellenodikai or other magistrates of the course, on the south side of the race track, centered at 60.50 m. east of the starting line. This was originally built in the fourth century B.C. and remodelled more than once in Roman times. It consisted of a raised stone platform just behind the water-channel edging the track. A series of post-holes, ten in front and two at each end, were apparently cut to hold a wooden fence which enclosed the stone podium south of the platform. The podium was 10.24 m. long, 1.95 m. wide and 0.23 m. in height and on it were set the chairs for the magistrates. At a later date it was widened 0.30 m. to make room for an additional row of chairs. In the first Roman reconstruction a brick podium was built over the stone one and walls of poros orthostates with rounded tops surrounded the podium on three sides, forming a rectangular enclosure 14.45 m. x ca. 7 m. Later, enlargements were made and finally a new stone podium was erected to replace the brick construction.

Few visitors to the Museum at Olympia will remember a more than half life size bearded head of Zeus in terracotta, with deep incrustation still covering it (fig. 1). In fact, this was so thick that it concealed all traces of color and even filled up the details in modelling, showing the original surface in only a few places. The head, although published by Furtwängler with the bronzes,<sup>2</sup> was neglected and almost forgotten, since it was not mentioned in any of the publications dealing with terracottas published during these last twenty years. The record in the daybooks of the excavators shows that it was found in November 1878 in a trial trench dug diagonally through the southern bank of the Stadium.<sup>3</sup> The head lay directly under the stratum deposited in the Middle Ages. Thanks to the careful notices in the inventory and daybooks, the exact place of its finding is known and the riddle of its position at this level can now be solved, since it lay in an artificial fill used to raise the height of the south bank. This fill of ancient material, which was the fourth of such superimposed layers, reached almost to the modern surface. On the 30th of November, 1938, there was found in one of the trenches dug to study the west bank of the Stadium, nearly 80 m. distant from the finding place of the head, but once again in the upper layer of the fill, the greater part of a base with the end of some drapery and the trace of setting for the right foot of a figure. A few days later, a piece of the

<sup>1</sup> E. Kunze and H. Schleif, *JdI*. 1941, III. *Bericht über die Ausgrabungen in Olympia*, pp. 1-144.

<sup>2</sup> Furtwängler, *AZ*. 36, 1878, p. 173; also "Bronzefunde aus Olympia," *ABA*. 1879, p. 90. Cf. also G. Treu, *Olympia* iii, pp. 35 f. Abb. 37, Taf. 7, 4.

<sup>3</sup> R. Weil, *Olympia* i, pp. 139 f.; E. Kunze and H. Schleif, *II. Bericht über die Ausgrab. in Olympia* 1937/38, pp. 5 ff.; *III. Bericht* 1938/39, p. 5 ff.



FIG. 1.—TERRACOTTA HEAD OF ZEUS BEFORE AND AFTER CLEANING

same base with left foot attached was uncovered in the same region. The headless body of a male figure with a boy came to light on the 17th of January, 1939, at the edge of the trench cutting through the south bank not far from the place where the head of Zeus was originally discovered. The cleaning and uniting of the fragments was no small undertaking. The bearded head (fig. 1) makes a perfect join with the body, as do the many broken fragments found in the recent excavations. Only the base lacks a definite join with the figure. Since, however, the feet and a bit of drapery showing the line of the folds at the back are extant, the restoration of the missing section in plaster can be accurately made. With this restoration the total height of the group is 1.06 m., while the figure of the god is ca. 0.95 m. measured from the top of the base. An irreplaceable loss is that of the head, feet and right arm of the youth (fig. 2).

This is the first time that an almost complete work of a Greek artist in clay on a large scale has been recovered. The art of the coroplast had already developed to a high degree before this group was made. At least four sections were used in its composition—the base, the two bodies, and the head of the god. They were modelled free hand, without moulds, then joined while leather-hard and the joints filled before firing. Traces of this can be seen in the join at the neck. The head probably had a peg which extended from its core down into the neck. The inner clay core of the group is greyish-yellow with blackish specks, while the covering slip, in places 8 mm. thick, has a somewhat lighter cream-yellow coloring and is made of an extraordinarily finely levigated and purified clay. The base consists of a rectangular box, open below, the upper surface of which slopes up from both sides towards the center.<sup>4</sup> The front and back walls have semicircular cuttings on their lower borders, which were evidently used for vent holes during firing at the kiln and perhaps again used in the setting of the akroterion. The base could not have stood upon a pedestal where it was visible, as there is no trace of paint except on the upper surface which had an uneven coat of glaze, but must have been set into a deep bedding such as is needed for an akroterion. The pedimented shape of the top of the base, following the inclination of the gable, is a further indication of the position which the group must have occupied.

The figure of Zeus is represented as striding forward and is rather flat from front to back in the true archaic style, but this is somewhat relieved by a slight turning of the head and the still stronger movement of the upper body. The figure is poised in such a way that the right foot, placed rather far back, as traces of its setting show, had only the toes and ball lightly resting on the ground. An unbroken idea of motion is carried through the whole figure and is intensified by the apparently simple but really skilfully planned arrangement of the drapery. Its broad spreading concave folds direct the eye upwards from right to left and an added impression of forward movement is given by the turning back of the edge of the drapery by the left leg. The mantle is draped in the usual fashion, with a point over the lower arm, baring a bit of the left elbow. The composition gets its full balance through the body of the boy, which the hastening god holds firmly under his right arm. The boy does not struggle, but appears to follow willingly, and places his right hand on the arm of the

<sup>4</sup> Length, 0.56 m.; depth, 0.235 m.; height at side, 0.066 m., at center, 0.115 m.



FIG. 2.—TERRACOTTA FIGURE OF ZEUS WITH HEAD OF FIGURE 1 SET ON THE NEWLY DISCOVERED BODY



god. His left hand carried a cock, carefully protected under his arm. His legs swing free in the air and a long curling lock of his hair lies against the shoulder of the god.

The head of the abductor had already been recognized as that of Zeus when it was first found, and a further reason confirming this attribution was provided by the olive leaf pattern on his fillet, which was discovered after the cleaning of the head. The kidnapped boy must be recognized as Ganymede, because of the cock which he carries under his arm. It is not the usual representation of later antiquity and the Renaissance, since we do not have the eagle sent by Zeus to carry off the boy, but a more lively representation, where Zeus himself has come down to earth and waylaid the Trojan lad and is now carrying him off to Olympos.<sup>5</sup> In the field of pictorial art there are many Attic vase-paintings of the first half of the fifth century with various scenes of kidnapping, but none show the actual abduction of Ganymede.<sup>6</sup> In spirit and execution, however, as well as in date, the closest parallel to our group is found on a kylix in the Louvre by Douris,<sup>7</sup> where Zeus can be recognized by his scepter and wreath. This belongs to the later period of the master, but the scene unfortunately cannot be identified with any well known myth. The only representation of an abduction scene in the round which has come down to us from the sixth century is the Antiope group from the gable at Eretria.<sup>8</sup> The skilful uniting of two figures in a free plastic work, such as the Olympia group shows, is a remarkable advance. The two figures are not equally good, Ganymede being only an attribute of the overpowering form of Zeus. Ganymede in myth was still a boy and here he is represented as smaller than he is on any of the vase-paintings, where he appears as a more fully grown figure. Zeus carries a staff, instead of his Olympian scepter, on this journey to earth. According to Kunze, the real comparative material for this group is to be sought in the free-standing *daimones* set up as akroteria and dedications on pillars in various sanctuaries. The use of the kidnapping motif for akroteria first appears in the archaic period. A terracotta akroterion from Caere, about 500 B.C., shows it for the first time. The morning goddess, Eos, is here represented carrying off the youth Kephalos, but this akroterion is flat and does not go beyond the limitations of pictorial relief. To break these fetters and to represent the kidnapper as a free-standing statue in the round was a creative act of great skill. The body and the drapery are well united and few traces of archaic forms are found in them. The Zeus-Ganymede group, according to Kunze, should be dated, at the earliest, about 470 B.C. The stylization of the hair over the brow in three rows of snail-shell curls is surprisingly archaic, but the combination of these curls with the roll of hair at the back of the neck does not contradict the later dating, since this had become an established usage in the early fifth century. The neck roll is divided into little vertical lumpy locks, a style of hairdressing found on the later kylikes of Douris and on the Apollo head represented on the coins of Leontini.<sup>9</sup> A slight smile, reminiscent of the archaic de-

<sup>5</sup> Kunze, p. 38, says that the eagle first appears as captor in place of the god in the art of the fourth century B.C. Cf. Friedländer, *RE*, vii, pp. 737 ff.

<sup>6</sup> Ganymede on vase paintings: Buschor, *FR*, iii, p. 254; Beazley, *Pan-Maler*, p. 14, with note 25.

<sup>7</sup> Louvre, G 123.

<sup>8</sup> For abductions in reliefs and paintings, see de la Coste-Messelière, *Au Musée de Delphes*, pp. 370 ff.

<sup>9</sup> For the treatment of the hair, cf. Apollo Strangford, *BM Cat*, i, 1; pl. 43.

light in existence, illuminates the face of Zeus, and is somewhat belied by the depth of expression in the eyes.

The Zeus group cannot be attributed to any known building at Olympia, since its proportions do not fit any of them. Nor does it resemble any of the architectural terracottas found at Olympia in quality of clay and other technical matters. Although Corinth must be recognized as the most significant center for Peloponnesian terracottas, it is impossible safely to attribute the Zeus to a Corinthian workshop, since one misses the characteristic tile-red flecks which occur in the Corinthian clay. The closest parallel to our group is the well preserved torso of a warrior, found in the Stadium at Olympia.<sup>10</sup> The colors on the warrior are the pure colors: white, red, black and brownish-yellow, sharply contrasted with each other and producing a vivid effect. While the color scale of the Zeus group is also based on four elements, they give a much darker and less brilliant impression. In the case of the warrior, the flesh is ivory-white and lustrous, whereas on the akroterion the nude parts are left in the natural ground color of the light brown clay. Although the thin glaze that originally covered the unpainted parts of the clay is largely destroyed, it must have been less thick and shiny than that on the warrior. The highest luster on the Zeus-Ganymede group is provided by the deep black glaze which resembles that used by the best vase-painters, and where it covers large surfaces, as on the hair and beard of the god, it has a bluish shimmer. Black, also, are the eyebrows, eyelashes and pupils of the eyes, and the borders on the mantle. These borders consist of a broad stripe on the outside, which provides a black background for a figured design of winged galloping horses, and a narrow and undecorated stripe on the inner side, visible only where the edge of the mantle is turned back. The small spiral curls around the neck are painted against the flesh with a thinned-out, brownish dilution of the black glaze. The prevailing color used on the great flat surface of the mantle down to the border is not the warm red one seen on the little mantle of the warrior, but a brown-red glaze often used by vase-painters. The painter has also used this same brown on the rounded band fillet placed against the black of the hair. On this fillet remains are still visible of a design of narrow olive leaves, left in the natural color of the clay. Very slight, but unmistakable, traces of a third color, a matt red, are found on the comb and grooves dividing the feathers of the cock which the boy holds. Red must also be restored on the lips of the god and probably also in circles around the black iris of the eyeballs. The long lock of Ganymede's hair, which lies on the shoulder of the god, may also have been red. The staff appears to have been unpainted. The galloping winged horses on the border of the mantle in the red-figured style, are drawn with remarkable freedom. Unfortunately, we have only the silhouettes of the horses preserved, since the inner lines which were put in, in glazed paint, have almost disappeared. The same frieze, faintly visible on the upper border of the mantle, gives a foreshortened view where the folds are gathered together and the corner thrown over the god's arm.

The torso of the warrior mentioned above <sup>11</sup> was found in the Stadium at Olympia at the same time as the Zeus figure, in January 1939, in the fill used to raise the south embankment. Other parts of this male figure, recovered from the same area, were

<sup>10</sup> E. Kunze, *JdI*. 1941, pp. 122-131, pls. 52-57.

<sup>11</sup> See above.

the upper right arm, the right leg down to the ankle and a part of the left leg which joins the torso. A piece of the lower left leg had been discovered earlier, some distance away. Still another fragment, which may be attributed to this same group, was found the previous year in a ditch cut by a stream of water, where it had evidently been washed down by the current. This piece is interesting, as it shows a woman's arm clasped firmly by a male hand, thus suggesting the existence of at least three figures in the group.

The reconstruction of this group must await further discoveries, as there is still a large area of the south embankment of the Stadium not yet excavated. The torso is obviously that of a warrior, with traces of the crest of a helmet showing on his back below the right shoulder, a strap to hold his sword-sheath crossing his body diagonally and greaves covering the lower part of his legs. These latter are represented in low relief, as well as painted. Over his left shoulder hangs a small mantle. The warrior shows lively, spirited movement, being represented as ready to attack, with left leg forward bearing his weight, a broad angle between the legs, right leg stretched straight back, with its outer line continuing the contour of the body, which is bent forward. It is evident from what is left of the neck that the head was turned slightly toward the left shoulder, while the left arm was extended at shoulder height, probably holding his shield. Traces of an attachment just under the breast, crossing the mantle, cannot be explained—perhaps it implies the presence of another figure. Further evidence for this is found on the lower left leg which has attached to the greave a piece of an object with scale ornamentation, perhaps a quiver belonging to a fallen warrior.

The size of the figure precludes its use as an akroterion. Although the torso and its accompanying fragments may possibly have formed part of a gable group, it would have needed a large building for its setting, since the warrior is almost three-quarters life size and thus is only a little smaller than the figures of the west gable at Aegina. No gable as large as this can be fitted into any of the known late archaic buildings at Olympia. The Treasuries are all too small; only the north or south building of the Bouleuterion could be considered, from the point of view of size, but the excavators have always assumed that these had hip roofs and not pediments. Furthermore, the warrior group has nothing in common, either technically or stylistically, with the roof terra cottas attributed to the Bouleuterion.

The warrior is a masterpiece of the coroplast's art. The figure is hollow and the thickness of the walls varies from 25–45 mm. The interior of the torso is divided by a vertical partition wall into two hollows which continue down into the legs and are connected with similar hollows in the arms, while the forearms and hands, as well as the ankles and feet, are solid. The material used for the core consists of a firm clay, shading from greyish-yellow to rose-yellow, which contains many hard light red particles, occasionally darkish red or black. This durable core is covered by a layer 3–9 mm. thick, of very finely levigated light creamy-yellow clay. This is the real plastic medium in which the sculptor worked, since its fine texture and consistency made possible the modelling of the most delicate details, as well as the more strongly accentuated forms. From this same clay, which had the quality of uniting firmly with the under layer, were made the accessories, such as the cloak and sword-straps.

This clay, both in its color and composition, is identical with the best clay used for Corinthian vases.

The remains of this group owe a large part of their effectiveness to their vivid contrasting colors. All the nude parts of the body were painted in an ivory white with a polished sheen, best shown on the right arm of the warrior, as the other parts are somewhat rubbed and discolored. Against this white ground the three genuine ceramic colors stand out. The pubic hair of the warrior is painted in a rather dull black, as is also the dot and circle which indicate the nipples and the double stripe on the mantle; remains of the same black appear on the border of the chiton on the female arm. A dazzling contrast to this is formed by the beautiful cherry red which covers the whole inner surface of the mantle as well as the sword-strap. Red also appears on the fragment of the quiver attached to the left leg, on the narrow edges of the greaves and on the woman's mantle. There are also traces of the red on the folds of her chiton. The third color is a thin light brown, almost golden-yellow on the greaves, but somewhat thicker and darker on the curiously stiff edge of the mantle which lies across the woman's arm.

The skilful modelling of such a powerful athletic body as this warrior's can only come from the hand of a Peloponnesian master, who had an interest and feeling for athletic subjects. It cannot, however, be connected with any other known works, since the remains from the first three decades of the fifth century are so scanty that there are many gaps in the Peloponnesian art of this period. The structure of the body is shown quite clearly in this torso from Olympia, but the figure is essentially archaic rather than classical in the vertical folding of the mantle on the shoulder and the fine play of lines on the zigzag border. The highly decorative treatment of the pubic hair is indicative of the period from 500 to 480 B.C. The hand clasping the woman's arm is archaic in type with its long, finely articulated fingers and strongly marked veins. Kunze believes that the historical place of his terracotta group can be determined with certainty. It must have been created about 490 B.C. in Corinth. Of the two schools of the late archaic period which tradition connects with Kanachos and Ageladas, the Olympia group stands nearer the former, the Sikyonian, geographically and artistically. In its spare treatment of bodily forms, there is relatively little to connect it with the powerful sturdy weight and massiveness of the works of the Argive master, Ageladas.

Argos and the School of Ageladas may, however, have produced a very fine bronze statuette of a horse, found in the same campaign at Olympia (fig. 3). It came to light at the east end of the South Colonnade, which had originally been cleared in 1879, but where deeper excavations had now been undertaken.<sup>12</sup> The statuette belonged to a quadriga group and appears to have been deposited here at the time of the leveling and raising of the ground for the building of the Colonnade, that is, shortly before the middle of the fourth century B.C. The few serious injuries had been suffered before it was buried; the tail may have been knocked off while the horse still stood in the Altis, but the hind hoofs must have been broken away when someone attempted to pull it loose from its base. The removal of the front hoofs was managed more successfully, for the flat, transversely bored dowels are still attached to them.

<sup>12</sup> E. Kunze, *JdI.* 1941, pp. 132-143, pls. 59-64.





FIG. 3. — BRONZE CHARIOT HORSE FROM OLYMPIA



Not many bronzes from Olympia have preserved their original surface as well as this little horse. Only a few small holes and weathered spots betray the effect of its long burial under the undisturbed pavement of the Hall. The horse is cast in a solid piece and measures 0.228 m. from top of base to peak of mane. It did not stand by itself but formed part of a larger group or votive offering. The type of horse, a powerful stallion, chosen by the artist, shows it to have been a chariot horse, which is also obvious from the harness. The bridle is executed with elaborate care and the breast-band is ornamented in front with a beautifully incised rosette and has a ring at the center of the back through which the reins could be run. Above it is buckled the girth, which is knotted on the left side, as are the vertical cheek-straps of the bridle. As there is no evidence of a yoke, this must have been one of the side horses of the quadriga, the left horse, as the slight turning of the head and the diagonal position of the ring for the reins indicate.

Small chariot groups are known to have been dedicated at Olympia, but one must not think of these votive offerings as being placed on low heavy bases but on higher pillars or columns, just as the chariot of the Spartan Polypeithes, according to Pausanias, "stood upon a column."<sup>13</sup> The position of the legs of the horse indicate an alert preparedness rather than a ceremonious pace. Perhaps the moment chosen for representation was that immediately before the start, when the team stands ready to go. The tension in the uplifted head would indicate that the driver had already tightened the reins. In agreement with this is the attentive listening attitude, which is expressed in the position of the ears, one forward and one back. The extended foreleg might then be interpreted as a gesture of controlled impatience.

Although the small horse is only a part of a group, it nevertheless stands as a powerful work of art, satisfying in itself. The sculptor of this statuette was an artist with a knowledge and a sure observation of horses, as is shown in his treatment of the sturdy breast, the shoulder sharply differentiated against the upper foreleg, the hindquarters with the markedly emphasized angle of the hip bones and the hollowed flanks, the finely veined skin covering the legs, the proud neck and the fine head with the brilliantly executed contrast between the bony and the soft parts. The modelling, however, does not lose itself in detail, but everything is subordinated to the general whole.

When the horse from Olympia is compared with others, especially with the approximately contemporary horse in the Metropolitan Museum, more dissimilarities than similarities appear. The New York bronze is of a different type—a fiery racer or riding horse, while the smaller bronze is a chariot horse, more stolid and compact in build. A difference in the breed of the two horses may be recognized in their skulls—the Metropolitan one narrow and pointed, the Olympia one broad and massive. A more fundamental difference is that each of the horses appears to have been made with equal ability, but according to an entirely different artistic canon. One is inclined to see in the New York bronze horse an Attic creation akin to the archaic marble horses on the Acropolis. The Olympia figure is far removed from this tradition. Nor does it resemble the work of the Aeginetan School. This leaves only the Dorian-Peloponnesian School as a possibility for the provenance. This attribution is

<sup>13</sup> Cf. the simple pillar, found on the Acropolis, which supported a small bronze horse by Onatas.

strengthened by the severe drawing of the contours and the solidity of the body of the animal. Although there are no directly comparable Peloponnesian works, it may possibly have come from Argos, which was one of the leading centers of Peloponnesian bronze work. Ageladas, who composed a chariot group for Kleosthenes, which was set up at Olympia, and a group of stolen horses and Messapian women for the Tarentines at Delphi, may have influenced the maker of the Olympian statuette. When the horse is compared with those from the east gable of the temple of Zeus, it is seen to be earlier in style, so it cannot be dated later than 460 B.C. A papyrus gives a good deal of information about the victors in the chariot-races at Olympia for the twenty years before 460 B.C.<sup>14</sup> It is known that in the seventy-seventh Olympiad, 472 B.C., a chariot from Argos was victorious. As the style of the horse suggests approximately the same date, one is tempted to assign it to the Argive School of Ageladas, who was still active at this time.

ELIZABETH PIERCE BLEGEN

<sup>14</sup> See C. Robert, *Hermes* 1900, pp. 141 ff.

## MULTUM IN PARVO

### AN EXHIBITION OF NEWLY ACQUIRED ENGRAVED ANCIENT GEMS

THE Metropolitan Museum of Art has had the opportunity of selecting for purchase thirty-one of the rarest gems from the rich collection of Sir Arthur Evans, the famous excavator of Knossos, who collected engraved gems with discrimination for sixty years. The Museum has also had the good fortune of receiving as a generous bequest the entire collection of William Gedney Beatty, consisting of more than five hundred stones. By the additional wealth of these accessions, the Museum's collection of engraved ancient gems has been brought to first rank, now equaling those of museums in Berlin, Boston, London, and Paris (fig. 1).

On November 23, the Museum will open to the public this unusual exhibition of superb engraved gems—the first showing of recently acquired examples dating from early Cretan to late Roman times. The exhibition will remain on view until January 15, 1943. The walls of the exhibition room are decorated with about fifty greatly enlarged photographs of impressions of the gems, giving the effect in photo-mural of a dramatic architectural frieze. By this novel means the great works of sculpture in the relatively tiny engravings are visible as never before. The development of ancient art through its peak and decline is reflected in the gems, from early Cretan thumb-nail sketches of animals to the highly finished sculpture of Imperial Rome.

On the gems scenes from the mythology and daily life of ancient Greece and Rome are recorded, reproductions of public buildings, ships of war and statues of heroes, animals and birds, and such bits of whimsy as a mouse driving a chariot drawn by a cock. Perhaps the earliest known representation of a sea-serpent, dated in the second half of the seventh century B.C., and the earliest extant Greek gem with an inscription—the “Suicide of Ajax”—are especially interesting.

Such seals were in demand for more than three thousand years. Designs were engraved in reverse and served as seals and identification marks. The minerals employed were chiefly semi-precious stones—colored quartzes, including agates—and in rare cases, precious stones—emeralds and sapphires. The Romans held engraved gems in high esteem. Pliny declares some to be “beyond any price and even beyond human estimation, so that to many men one gem suffices for the contemplation of all nature.”



SPHINX, FROM MELOS. EARLY VIII<sup>TH</sup> C. B.C.



FOREPART OF A WARSHIP;  
SEA-SERPENT. FOUND AT EPI-  
DAUROS LIMERA. SECOND  
HALF OF VIII<sup>TH</sup> C. B.C.



SUICIDE OF AJAX, PERACHORA. SEC-  
OND HALF OF VIII<sup>TH</sup> C.



HERON WITH A SNAKE IN  
ITS BEAK. PROBABLY THIRD  
QUARTER OF VII<sup>TH</sup> C. B.C.



LONG-ROBED CHARIOTEER DRIVING A TWO-  
HORSE CHARIOT. FOUND NEAR TRIKKALA, THES-  
SALY. LATE VII<sup>TH</sup> C. B.C.



DEVOURING A BULL, FROM A TOMB AT  
GELA. LATE VI<sup>TH</sup> C. B.C.



LONG-ROBED CHARIOTEER DRIVING A QUAD-  
RIGA. SECOND HALF OF IV<sup>TH</sup> C. B.C.



SARDONYX CAMEO BUST OF AUGUSTUS



PORTRAIT HEAD OF  
WOMAN. HELLENISTIC  
III<sup>RD</sup> C. B.C.

## ACCA LARENTIA

*Magna deum mater, materque ferarum.*  
Lucretius.

There is little need to outline, for the readers of this JOURNAL, the famous foundation legend of Rome: the Twins, exposed immediately after their birth, on the bank of the Tiber, are suckled by a she-wolf (a wide-spread motive of folk-tales<sup>1</sup>). They are found by a shepherd, Faustulus, adopted by him and nursed by his wife, who is none other than Acca Larentia, the subject of this inquiry.<sup>2</sup>

A comparison of the story with a well-known parallel legend, the birth of Cyrus, leaves little doubt about the true nature of this Acca. For just as Romulus and Remus were suckled by a she-wolf, so the young Cyrus was reported to have been suckled by a bitch.<sup>3</sup> Subsequent rationalists (Herodotus is one of these) converted the bitch into a slave woman bearing the name of *Spako*, the word *spaka* (it is the Russian *sobaka*) meaning "bitch" in the language of Media.<sup>4</sup> In other words, Acca owes her existence in the Roman tradition to the same rationalist current as the slave woman Spako in the Persian, which is as much as to say that she is a she-wolf just as Spako is a bitch.<sup>5</sup>

Nor does this exhaust the wolf theme of the Roman legend. The mother of the Twins is called *Rhea Silvia*. The first part of the name is obviously a Greek borrowing, Rhea being but another name for the great Anatolian mother-goddess. *Silvia*, an adjective meaning "forest," is as obviously an epithet promoted to a proper name; it has been plausibly conjectured to be a circumlocution designating the she-wolf whose true name, *lupa*, people hesitated to pronounce (as they still do in many places) from fear of attracting the dangerous animal.<sup>6</sup> Finally, the name *Silvius*, which according to the same reasoning would mean "wolf," recurs among the names of the kings of Alba Longa, the mythical ancestors of the Roman Twins.<sup>7</sup> We are, of course, quite aware of their spurious genealogy, but he who compiled it was certainly acquainted with the importance of the name *Silvius* in the traditions of Latium, or else he would have chosen some other name.

To return now to the lupine nurse of the Twins. We are naturally led to inquire into the nature of Acca. Her name cannot be separated from the Greek Ἀκκώ, the name of Demeter's nurse, the word ἄκκω "vain female bogey," the Sanskrit *akkā* "mother," the Lapp *Madder-akka* "mother earth,"<sup>8</sup> the Finnish *Ukkö*, lit. "grandfather," name of the oldest and highest god of the Finns, the Yakut *aga* "father,"

<sup>1</sup> Cf. E. S. McCartney, "Greek and Roman Lore of Animal-Nursed Infants" *Papers of the Michigan Academy of Science, Arts and Letters* iv, 1924, pp. 15-40, New York, 1925.

<sup>2</sup> Ovid, *Fasti*, ed. Frazer, London, iii, 1929, 14, n. 1, where the literary sources are cited.

<sup>3</sup> Justin, i, 4.

<sup>4</sup> Cf. Her. i, 110, 122; A. Bauer, "Die Kyros-Sage und Verwandtes" *Sitzungsberichte d. Wiener Akad. d. Wiss., phil.-hist. Cl. C*, 1882, pp. 501 and 505; McCartney, *op. cit.*, pp. 33 f.

<sup>5</sup> For a comparison of the Roman and Iranian traditions, cf. Bauer, *op. cit.*, pp. 539 ff.

<sup>6</sup> Sir James G. Frazer, *Taboo and the Perils of the Soul*, London, 1935, pp. 416 ff.

<sup>7</sup> Frazer, *The Magic Art and the Evolution of Kings*, London, ii, 1935, p. 178.

<sup>8</sup> E. N. Setälä, *Finnisch-Ugrische Forschungen* xii, 1912, pp. 208 ff.



Mong. *aka*, *akha* "elder brother," "master."<sup>9</sup> On this showing, Acca would appear to be the Roman equivalent of Mother Earth, the nourishing and life-giving, but also chthonian, divinity.

If such is the case, we should expect the second name, *Larentia*, to bear out the conjecture. Now *Larentia* was connected with the feast of the *Larentalia*, which fell on December 23rd, as we know from the Maffeian and Praenestine calendars and the evidence of Ovid.<sup>10</sup> On that day the priests offered her publicly mortuary honors (*publice parentant*).<sup>11</sup> Macrobius (*Sat.* i, 10, 16) refers to the same honors as an annual *parentatio*. They would, therefore, seem to have resembled the regular honors paid to the dead in February and known as *Parentalia*. In his *Roman Questions* (34) Plutarch asks, among other things: "Whereas all the other Romans offer libations and sacrifices to the dead in February, why did Decimus Brutus (as Cicero relates) do this in December?" The conclusion is obvious that Decimus Brutus sacrificed to his dead on December 23rd, the day of the *Larentalia*. Plutarch, in asking the question, duly notes the occurrence of the *Larentalia* in December. The various philosophical reasons adduced by him to account for the habit of Decimus Brutus do not hold water. Neither do Sir James Frazer's, who connected the caprice of Decimus with his name and the fact that December was the tenth month of the old Roman year.<sup>12</sup> People are not guided by caprices in matters of this nature, and the true explanation must be sought elsewhere.

Decimus was one of the heads of the conservative party, and his somewhat ostentatious manner of differing from the *profanum vulgus* may simply have its root in the fact that the *Larentalia* were known (at least to antiquarians) as an old feast of the dead. This is borne out by the striking fact that to this very day Christmas-tide is an All Souls Day in many parts of Europe and the Near East.<sup>13</sup> Acca *Larentia* would then appear to be the mother of the *Lares*, whose chthonian associations have repeatedly been suspected.<sup>14</sup>

At all events, the evidence reviewed thus far tends to show that Acca *Larentia* was a mother-goddess, very probably Mother Earth, manifesting herself in her usual double aspect as the *magna parens* of mortals and as the great chthonian goddess of death, who mercifully takes men back unto her bosom at the close of their earthly careers.

Here the question arises: Why should such a divinity be thought to assume the shape of an animal hated and feared as much as was the wolf by all husbandmen and agriculturists? After all, it is not the enemies of Rome who invented the story of the Twins and their lupine nurse.

The correct answer to this question was given as early as 1904 by Salomon Rei-

<sup>9</sup> Cf. Max Müller, *Contributions to the Science of Mythology*, London, i, 1897, p. 262 f.; H. Güntert, *Kalypso*, Halle, 1919, p. 53; K. Krohn, "Zur finnischen Mythologie," *Folklore Fellows Communications*, No. 104, Helsingfors, 1932, pp. 33 ff.; Frazer, *Anthologia anthropologica. The Native Races of Asia and Europe*, London, 1939, pp. 319 f.; Walde, *Lat. etym. Wörterbuch*, p. 5.

<sup>10</sup> *Fasti*. ed. cit. iii, 15 f.

<sup>11</sup> *Ibid.*, p. 17.

<sup>12</sup> Varro, *De lingua latina* v, 23-24; cf. Ovid, *Fasti* iii, 16, n. 3.

<sup>13</sup> Cf. *Speculum* xiii, 1938, p. 213.

<sup>14</sup> Jérôme Carcopino, "Virgile et les origines d'Ostie," *Bibl. Ec. Franc. d'Athènes et de Rome* cxvi, Paris, 1919, p. 106; Margaret C. Waites, *AJA.* xxiv, 1920, p. 247; Lily Ross Taylor, *ibid.* xxix, 1925, pp. 299 ff. On the identity of Acca *Larentia* with the *Mater Larum*, cf. Dessau's note 24 on the record of the Arvales, *Inscr. Sel.*, 9522.

nach<sup>15</sup> and again by O. Gruppe.<sup>16</sup> Both scholars pointed out that chthonian divinities frequently appear in wolf-shape and that Death was originally pictured as a wolf with gaping mouth, whence such figures as the Greek Kerberos, the dogs watching the bridge Cinvat, the dogs of Yama, the wolf-shape of the Celtic Dispat, etc. The wolf-shape of Acca Larentia would then merely confirm her chthonian character.

\* \* \*

Since, in the foregoing pages, we have been guided by facts which cannot claim too close a connection with the prehistoric cults of Italy, the conclusion will not appear unnatural that Acca Larentia, so far from being an isolated figure peculiar to Italy, is likely to have parallels elsewhere in Europe and even in the Near East, and it will be useful to review these. Quite naturally, we begin our inquiry in Greece.

Acca Larentia was the nurse of the Roman Twins, while her *alter ego*, Silvia, was their mother. On Hellenic soil we also find a twin couple, or rather twin couples: they are Apollo and Artemis, Kastor and Polydeukes; they are the children of Leto or Leda respectively. Leto, whose Lycian name means simply "woman," is unquestionably a mother-goddess, whose fertility is sufficiently indicated by her twin birth.

There also existed a tradition attested by Aristotle,<sup>17</sup> to the effect that on one occasion Leto assumed wolf-shape. Whether or not we accept this tradition as old, Leto, Mother Leto, was certainly merely a special form of the great Anatolian mother-goddess, the Πότνια θηρῶν, whose chosen home was the Anatolian mountain world, with its wild animals. Her chosen companions are lions, or stags, and her servants, while engaged in her worship, transformed themselves (by masks) into the semblance of these holy animals of hers: stag, cow or bear.<sup>18</sup> She is addressed, in the words of Aeschylus:

τόσον περ εὐφρων, καλὰ  
δρόσοισι λεπτοῖς  
μαλερῶν λεόντων  
πάντων τ' ἀγρονόμων φιλομάστοις  
θηρῶν ὀβρικάλοισι τερπνὰ,  
τούτων ἵεται ξύμβολα κρᾶναι  
δεξιὰ μὲν, — κατάμομφα δὲ φάσματα σούσθω.

She appears to have been also a lunar divinity, as may be judged (1) from her epithets νυχία and ἡύκομος; (2) from the fact that she is the mother of the Anatolian sun-god, Apollo — the moon is frequently thought older than the sun and night older than day<sup>19</sup>; (3) from her Etruscan equivalent, *Lala*,<sup>20</sup> who is characterized by the

<sup>15</sup> *Revue Celtique* xxv, 1904, pp. 208–24; reprinted in *Cultes, Mythes et Religions* i, 1922, pp. 279–98.

<sup>16</sup> *Griechische Mythologie und Religionsgeschichte*, München, 1906, p. 769. Cf. also G. Welter, *RA.* iv (17), 1911, pp. 55–61.

<sup>17</sup> *Hist. anim.* vi, 35. Mr. R. P. Eckels, in his recent book, *Greek Wolf-Lore*, Philadelphia, 1937, pp. 66 ff., tried to whittle down the evidence and to show that the traditions are aetiological tales of relatively late date; his reasoning is not very convincing.

<sup>18</sup> Sir William M. Ramsay, *The Cities and Bishoprics of Phrygia*, Oxford, i, 1895, p. 89 f.

<sup>19</sup> Snorri, *Gylfag.*, c. 10; Alexander MacBain, *Celtic Mythology*, Stirling, 1917, p. 64; J. Dutoit, *Jatakam* iv, 73; E. Siecke, "Ueber einige mythologisch wichtige Tiere," Leipzig, 1916, *Mythologische Bibliothek* viii (4), p. 62. At Nemea, Selene was fabled to be the mother of the sun lion; Aelian, *De nat. anim.* xii, 7; Schol. Apol. Rhod. i, 498; Plut. *De facie in orbe lunae* xxiv, 6.

<sup>20</sup> *Lala* is the Etr. form of Dor. *Lada*. On the change of *d* to *l* (and the reverse) cf. Michel Bréal,

crescent;<sup>21</sup> (4) from the name of her mother, Φοίβη, commonly applied to lunar goddesses (this genealogy simply indicates that the old moon gives birth to the new moon<sup>22</sup>); (5) from the fact that her sister is Asteria, i.e. the planet Venus;<sup>23</sup> (6) from her starry veil, shown in a vase-painting,<sup>24</sup> and from her connection with the olive, a typical lunar plant.<sup>25</sup>

As an ancient Anatolian divinity, Leto was identified, after the Persian conquest, with Anaïtis who, if Porphyry (*De abst.* iv, 16) is to be believed, was called by the Magi a she-wolf.<sup>26</sup> But Anaïtis was decidedly a lunar divinity, as is indicated by her function as a divine midwife, a Persian Eileithyia.<sup>27</sup>

On this showing one would expect Leto's daughter, Artemis, to have been likewise a she-wolf; but the existing evidence on this point is weak.<sup>28</sup> On the other hand, Artemis is closely associated with another of Europe's large carnivora, the she-bear.

The bear-Artemis has been discussed so frequently and by such a large number of competent critics that there is no need to revert to the subject.<sup>29</sup> Her lunar origin is also admitted: her rôle as divine midwife, her function as κουροτρόφος, her fertility-granting powers, all point in the same direction.<sup>30</sup> A chthonian she certainly was not, at least not in the classical period; the last scene of Euripides' noble play *Hippolytos* would remove all doubt on the subject. But as a sender of the plague she had a chthonian aspect. The latter feature might perhaps explain her ursine shape, for the bear, like the wolf, might easily become a personification of Death. Some doubt might arise about the association of the animal with the moon; but this association is susceptible of proof.

As is well known, one of the most prominent constellations of the northern sky, the Dipper, is known as *Ursa major*. This term is a literal translation of the Greek Ἄρκτος. The Greeks explained this strange name by the following stories. According to some, this she-bear had been a fair mortal who, by helping the father of gods and men to while away his hours of idleness (which must have lain heavily on him), drew upon herself the wrath of Hera, who transformed her into a she-bear, which was then

*Mélanges de mythologie et de linguistique*, Paris, 1877, p. 178; Paul Kretschmer, *Einleitung in die Geschichte der griechischen Sprache*, Göttingen, 1896, pp. 280 ff.; J. Schrijnen, *Zeitschrift f. vgl. Sprachforschung* xlv, 1914, pp. 276-80; P. v. Bradke, *Ueber Methode und Ergebnisse der arischen Alterthumswissenschaft*, Giessen, 1890, p. 245; R. S. Conway, *Indogermanische Forschungen* ii, 1893, pp. 157-67.

<sup>21</sup> W. H. Roscher, "Ueber Selene und Verwandtes" *Studien zur griechischen Mythologie und Kulturegeschichte* iv, Leipzig, 1890, p. 15.

<sup>22</sup> *Ibid.*, pp. 18, n. 50; 99 f.

<sup>23</sup> Cicero, *De nat. deor.* iii, 18, 46.

<sup>24</sup> E. Gerhard, *AV.* Berlin, 1840-58, plate 26.

<sup>25</sup> Strabo, xiv, 1. 20; Cat. xxxiv. 7.

<sup>26</sup> Ramsay, *op. cit.* i, 90. This feature proves conclusively (if proof be required) that the cult of Anaïtis falls outside the Zarathustrian religion; we learn from Plutarch (*De Is. et Os.*, c. 46) that among the Persians the wolf was a chthonian animal which played a rôle in the nightly sacrifices made to Ahriman; cf. E. Benveniste, *The Persian Religion according to the Chief Greek Texts*, Paris, 1929, p. 74.

<sup>27</sup> Cf. my book *La Genèse des Mythes*, Paris, 1938, p. 108.

<sup>28</sup> Gruppe, *op. cit.* ii, 1294, n. 4.

<sup>29</sup> *Ibid.* ii, 1270; cf. S. Reinach, *Cultes, Mythes et Religions* iii, 39: Son nom—Artémis rapproche d'arktos—joint à des témoignages littéraires et figurés, prouve que l'Artémis primitive, celle d'Arcadie probablement, a été une ourse.

<sup>30</sup> H. Usener, *Kleine Schriften* iv, 1914, p. 14; Jane E. Harrison, *Mythology (Our Debt to Greece and Rome)*, Boston, 1924, p. 120; cf. also K. B. Stark, *Berichte über die Verhandlungen d. Kgl. Sächsischen Gesellsch. d. Wiss. zu Leipzig, philol.-hist. Cl.* viii, 1856, p. 71.

placed in the starry sky by Zeus.<sup>31</sup> According to others, she was a fair nymph in the retinue of Artemis who, having been seduced by Zeus, was transformed into a she-bear by her angry mistress, but transposed among the stars by her lover.<sup>32</sup> Now the names of the fair heroine, Καλλιστώ or Καλλίστη are *noms parlants* and epithets of Artemis herself. As such they do not designate the constellation, but the moon.<sup>33</sup> The she-bear, in the original version of the myth, was then transposed into the moon, an extremely widespread story motive.<sup>34</sup>

The bear-Artemis has a striking parallel figure in Asia Minor. In that country flourished the cult of the Magna Mater, a divinity frequently equated with Artemis. The bear was one of her sacred animals,<sup>35</sup> and she, too, was probably a she-bear. In her procession figures *ursa mansues, quae cultu matronali sella vehebatur*.<sup>36</sup> This connection of the animal with a *cultus matronalis* leads us back to the powers of fertility with which the great goddess was credited. Nor is it probably an accident that in the Troad we find the tradition of Paris being suckled by a she-bear.<sup>37</sup> It is an exact parallel of the continental Greek story of Atalanta, the *alter ego* of Artemis, being suckled by a she-bear.<sup>38</sup> Nor must it be forgotten that bears occupy a prominent place among the animals which enjoy the special protection of the Πότνια θηρῶν.<sup>39</sup>

We now understand the reason why the *alter ego* of Acca Larentia, the mother of the Roman Twins was called *Rhea Silvia* by the antiquarians responsible for the elaboration of the Romulus legend: they were aware of the fact that the mother of the Twins was but a special form of the Πότνια θηρῶν, worshipped in prehistoric Greece and Anatolia and best known, in Italy, by her Cretan name.

The cult of the Magna Mater is known to have flourished, in chalcolithic times, over a territory extending from the Indus valley to the Aegean.<sup>40</sup> True, we have no positive evidence about the theriomorphic manifestations of the goddess in each part of this vast region, but it is not likely that this feature should have been peculiar only to Greece and Asia Minor. J. J. Bachofen<sup>41</sup> was right when he surmised that the bear cult virtually covered the same territory as the cult of the Great Mother worshipped as Dindymene, Idaea, Kybele, Rhea, Pessinuntia, etc. all over the Middle East, from Trojan Ida as far as Syria. He was equally right in his conclusion that the bear-Artemis is merely a special form of the bear-Kybele.<sup>42</sup>

The bear-Artemis has a close pendant in Celtic lands, where a bear-goddess was worshipped under the name of *Artio* "she-bear." It is she who has given her name to the city of Berne and who is responsible for the coat-of-arms of the capital of the Helvetian republic, as well as for the bears kept in the *Zwinger* of the city down to

<sup>31</sup> Pauly-Wissowa, *RE.* x, cols. 1726-29.

<sup>32</sup> *Ibid.*, cols. 1673-74.

<sup>33</sup> This conclusion was drawn as early as the middle of the last century; cf. H. D. Müller, *Mythologie der griechischen Stämme*, Göttingen, ii, 1861, 304.

<sup>34</sup> *La Genèse des Mythes*, pp. 119 ff.

<sup>35</sup> Lucian, *De dea syria*, 41; R. H. Klausen, *Aeneas und die Penaten*, Hamburg-Gotha, i, 1839, 94, n. 236.

<sup>36</sup> Apuleius xi, 8.

<sup>37</sup> Apollod. iii, 12, 5.

<sup>38</sup> Apollod. iii, 9, 2; Aelian, *Var. hist.* xiii, 1.

<sup>39</sup> On the bear-shape of Kybele, cf. also J. J. Bachofen, *Urreligion und antike Symbole*, Leipzig i, 1926, 146.

<sup>40</sup> J. Przyluski, *Revue de l'histoire des religions* cv, 1932, pp. 182-92.

<sup>41</sup> *Op. cit.* i, p. 147.

<sup>42</sup> Cf. also J. Keil, in *Anatolian Studies* presented to Sir William M. Ramsay, Manchester, 1923, p. 262, n. 1.



modern times.<sup>43</sup> In the Gallo-Roman period she was quite naturally identified with the great Asiatic mother-goddess, for the sanctuary destroyed by St. Martin of Tours, as belonging to Dindymene, was probably one of the Celtic Artio.<sup>44</sup>

The question arises: Why, of all great carnivora, was the bear chosen to represent the great mother-goddess? Let us note, to begin with, some facts which appear somehow to be connected with our problem. The Greek word ἄρκτος is always of the feminine gender, even when both sexes are clearly included. Likewise in Latin the word *ursa* frequently denotes the animal genus irrespective of sex.<sup>45</sup> Again, among the Ostiaks of Siberia, whose language has no genders, the bear (irrespective of sex) is the *daughter* of the sky-god Numi Târim, who is himself the Father of Animals and supposed, as such, to let down fish and wild animals from above for the benefit of his worshippers.<sup>46</sup> All this would permit the inference that somehow the female impressed herself upon observers more than the male.

This conclusion is borne out by the mediaeval bestiaries. They note the extraordinary affection of the mother-bear for her young, which led to the queer belief that she licked them into shape.<sup>47</sup> This maternal and hence fostering and kindly aspect of the bear, the *Ursa matronalis*, naturally favored the view that, an incarnation of motherly love, the she-bear was the personification of the great mother-goddess.<sup>48</sup>

We know far too little about the religion of the ancient Teutons and Slavs to be certain that the peoples of northern Europe worshipped a bear-goddess. That the bear was a holy animal of the Teutons would follow from evidence reviewed elsewhere.<sup>49</sup> That the Russians regarded the animal with superstitious fear would follow from its name, *medved*, lit. "honey-eater," a distinct taboo name.

What must be borne in mind in all considerations of this type is not only the obvious fact that divine theriomorphism and animal worship were bound to fade with the progress of the Mediterranean civilization in Central and Northern Europe, but also the no less obvious one that the bear has been on the retreat in Europe ever since the beginning of the Christian era, having been driven back by man into the forests of Russia and Scandinavia and into thinly populated mountain fastnesses in the Balkans, the Carpathians, and the Pyrenees.

Such being the case, we should reasonably expect the ancient bear cult to survive in these out-of-the-way regions. In this expectation we are not disappointed: we do find this cult among the Lapps of Northern Europe, virtually throughout Siberia, and among a number of Indian tribes on the North American continent.<sup>50</sup> Thus

<sup>43</sup> Salomon Reinach, *Revue Celtique* xxi, 1900, p. 288; *Cultes, Mythes et Religions* i, p. 31; J. A. MacCulloch, *The Religion of the Ancient Celts*, Edinburgh, 1911, p. 212.

<sup>44</sup> Cr. also Victor Bérard, *Les Phéniciens et l'Odyssée*, Paris, 1927, p. 392.

<sup>45</sup> Bachofen i, p. 141.

<sup>46</sup> John Abercromby, *The Pre- and Proto-historic Finns*, London, i, 1898, p. 154.

<sup>47</sup> Pliny, *NH.* viii, 36; Solinus, c. 26; Aelian, *De nat. anim.* ii, 19; Plutarch, *De amore proliis*, c. 2; Ovid, *Metam.* xv, 379-81.

<sup>48</sup> Cf. Bachofen, *Der Bär in den Religionen des Alterthums*, Basel, 1863; reprinted in *Urreligion* i, 138 ff.

<sup>49</sup> *Speculum* viii, 1933, p. 271; Vigfusson-Powell, *Origines Islandicae*, Oxford ii, 1905, 660; J. W. Wolf, *Beiträge zur deutschen Mythologie* ii, 1857, pp. 64 f.

<sup>50</sup> Frazer, *Anthologia*, pp. 156 ff.; A. Kannisto, "Ueber die Bärenzeremonien der Wogulen, in *Liber saecularis. Litterarium Societas Esthonica*, 1838-1938, Tartu, 1938; Leo Sternberg, *ARW.* viii, 1905, pp. 249 f.; 456 ff.; W. Bonser, *Folk-Lore*, xxxix, 1928, pp. 350 ff.; Abercromby, *op. cit.* i, 168; I. Zolli, *Lares*, viii, 1937, pp. 87-91.



among the Apaches, we are told, "only ill-bred Americans or Europeans who have never had any 'raising' would think of speaking of the bear . . . without employing the reverential prefix *ostin*, meaning 'Old One'." <sup>51</sup> Similarly, the nations of Siberia do not like to pronounce the name of the bear; they call him "Little Old Man," "Master of the Forest," "the Venerable," "He who knows," or simply "He." <sup>52</sup>

The European bear cult is thus seen to hark back to a very early stage of human culture, the pre-agricultural stage as we still find it, for climatological reasons, in Northern Europe and Siberia. It is a stage of scattered settlements inhabited by shepherds, hunters, and fishermen. From this point of view the Hellenic Artemis cult is clearly a survival: Artemis is the goddess of a people in a stage of culture which already in Homeric Greece was a thing of the past, except in certain out-of-the-way districts such as Arcadia, untouched by the march of the Ionian civilization. <sup>53</sup>

\* \* \*

If this reasoning is correct, we should expect to find, connected with the cult of Artemis, certain primitive or barbaric rites, over a large part of the territory once dedicated to her cult. In this expectation we are not deceived.

The cult of Artemis is unusually rich in rites which, because of their very crudeness, hark back to a far past. One of the most curious of these was performed annually at her sanctuary at Patrae in Achaia, where she was worshipped under the cult title of Laphria. <sup>54</sup>

The festival opened with a gorgeous procession, in which the rear was brought up by her virgin priestess riding in a car drawn by deer. The following day, a great pile of dry wood having been erected over the altar and enclosed by a strong palisade, deer and many other kind of animals, including wild boars, bears and wolves, were burned alive on the altar. Pausanias relates that on one occasion he had seen some of the wild beasts breaking through the palisade and escaping by sheer strength; but the people dragged them back into the flames.

Much the same type of holocaust is described by Lucian, who saw it performed at the sanctuary of the Syrian Goddess at Hierapolis-Baalbek: <sup>55</sup>

The greatest of the festivals that they celebrate is that held at the opening of spring; some call this the Pyre, others the Lamp. On this occasion the sacrifice is performed in this way. They cut down tall trees and set them up in the court; then they bring goats and sheep and cattle and hang them living to the trees; they add to these birds and garments, and gold and silver work. After all is finished, they carry the gods around the trees and set fire under; in a moment all is in a blaze. To this solemn rite a great multitude flock from Syria and all the regions around. Each brings his own god and the statues which each has of his own gods.

The opening of spring means the month of Nisan, the month corresponding to April. On the first three days of Nisan, as we learn from the *Fihrist*, the Syrians of

<sup>51</sup> Harrison, *op. cit.*, p. 117.

<sup>52</sup> Frazer, *Anthologia*, *loc. cit.*

<sup>53</sup> Bachofen, *Urreligion* i, 149 f.; E. Curtius, *Gesammelte Abhandlungen*, Berlin, ii, 1894, § ff.; U. v. Wilamowitz-Moellendorf, *Hellenistische Dichtung in der Zeit des Kallimachos*, Berlin, ii, 1924, pp. 48 ff. L. R. Farnell, *The Attributes of God*, Oxford, 1925, p. 110, rightly observes: "Of the hunting period no reflection remains in our modern religious tradition." But there existed a great many such reflections in the Graeco-Roman civilization of antiquity.

<sup>54</sup> Paus. vii, 18, 11-13; M. P. Nilsson, *Griechische Feste von religiöser Bedeutung*, Leipzig, 1906, pp. 218 ff.; Ovid. *ed. cit.* ii, 167.

<sup>55</sup> Lucian, *De dea syria*, c. 49.

Harran, who remained Astarte-worshippers down into the Middle Ages, visited the temple of the goddess in groups and offered sacrifice by burning living animals.<sup>56</sup>

In the cult of the Tyrian Heracles (Melkart) quail were offered by being burned alive.<sup>57</sup> But the quail is known to have been the holy bird of Artemis and of Leto, who conceived the twins Apollo and Artemis in the shape of a quail.<sup>58</sup>

The resemblance between these Semitic rites and the holocaust of Artemis Laphria is so striking that Victor Bérard<sup>59</sup> did not hesitate to derive the Greek ritual from the Semitic. It would have been more prudent to be content with the inference that the great Asiatic goddess worshipped at Hierapolis and the Hellenic Artemis go back to a prehistoric mother-goddess.

This conclusion is confirmed by archaeological evidence from Crete, showing that similar holocausts were offered within an enclosure on the temple floor, while two images show a goddess in sitting posture. She is none other than Artemis, the Πότνια θηρῶν. The temple in question, on the acropolis of Prinias, is the oldest known sanctuary of the great Mistress of Animals, and the holocausts offered her go back into prehistoric times.<sup>60</sup>

Like the bear-goddess, the holocaust of living animals turns up among the Celts of Western Europe. We have the accounts of the geographer Strabo and the historian Diodorus, who both appear to have drawn on a lost work of Posidonius, who was also one of the sources of Caesar's classical description of the Celtic fire festival and the famous *mannequins d'osier*.<sup>61</sup>

Condemned criminals were reserved by the Celts in order to be sacrificed to the gods at a great festival which took place once every five years. The more there were of such victims, the better was the outlook for good crops and general well-being. If there were not enough criminals to furnish victims, captives taken in war were immolated to supply the deficiency. When the time came the victims were sacrificed by the priests, some being shot down with arrows, others being impaled, while still others were burned alive in colossal images of wicker-work, or of wood and grass. These were filled with live men, cattle and other kinds of animals. Fire was then applied to the images, which were thus burned with their living content.<sup>62</sup>

The texts say nothing about any specific divinity to whom this offering was made, but the feature of wild animals joined to the usual victims would seem to render it very likely that the Celts, too, had their Mistress of Animals, the protectress of all wild life, in short, their Artemis. This being the case, there is a distinct possibility of the goddess Artio being somehow connected with these rites. Unfortunately, it is difficult to be certain on this point, the more so because the Greeks, too, had other

<sup>56</sup> W. Robertson Smith, *Lectures on the Religion of the Semites*, London, 1894, pp. 470 f.

<sup>57</sup> Raoul-Rochette, *Mém. Acad. Inscr.* xvii, 1847, pp. 201 f.; Stark, *loc. cit.*, pp. 35, 38, 44, 71.

<sup>58</sup> *Ibid.*, p. 70.

<sup>59</sup> *De l'origine des cultes arcadiens*, Paris, 1894, p. 146; *Les Phéniciens et l'Odyssée*, Paris, 1902-1903, i, 228.

<sup>60</sup> M. P. Nilsson, *JHS.* xliii, 1923, pp. 146 f.; *The Minoan-Mycenaean Religion and its Survival in Greek Religion*, Lund, 1927, p. 435.

<sup>61</sup> Strabo, iv, 4, 5; Diod. v, 32; Caesar, *De bell. gal.* vi, 16, 4; cf. Karl Müllenhoff, *Deutsche Altertumskunde* li, Berlin, 1891, p. 182; H. D'Arbois de Jubainville, *Études sur le droit celtique* i, Paris, 1895, 168 ff.; W. Mannhardt, *Wald- und Feldkulte* i, Berlin, 1875, pp. 525 ff.

<sup>62</sup> For certain reservations on the statements of our sources cf. Reinach, *Cultes, Mythes et Religions* v, Paris, 1923, pp. 202 ff.

divinities filling this general function and being accordingly honored with holocausts of this type.<sup>63</sup>

In France the ancient rite survived down to relatively modern times, except that the victims thrown into the midsummer fires were generally cats.<sup>64</sup> At Luchon, in the Pyrenees, on the eve of St. John, a hollow column, constructed of strong wicker-work was raised to a height of about 60 feet and interlaced with green foliage. Then the column was kindled, while the chorus of the villagers sang ancient hymns and hurled living snakes into the flames.

That cats were the logical successors of wilder animals may also be seen from the fact that the great Anatolian Πότνια θηρῶν survives to this day in Turkish fairy tales, in which the wild beasts of the mountains are referred to as her "kittens."<sup>65</sup>

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The Πότνια θηρῶν is a figure whose cult has been traced from prehistoric Crete down into classical and even Hellenistic times. In the monuments she is frequently accompanied by two male figures, the Dioscuri, or their predecessors.<sup>66</sup> This leads us back to the starting point of our inquiry, Acca Larentia and the Roman Twins, and the question of the true relationship between the Hellenic Πότνια θηρῶν and the old Italian wolf-goddess.

According to a well-known passage of Macrobius (*Sat.* i, 12, 21) the cult of the Arval Brethren was dedicated to an earth goddess called *Maia*, declared to be identical with the Bona Dea and with the Mater Larum, invoked by the same Brethren, while the identity of Acca Larentia with the Bona Dea may be inferred from the fact that the twelve Arval Brethren in their sacrifices to the Bona Dea represent the twelve sons of Acca Larentia.<sup>67</sup>

On the other hand, the Mater Larum appears in various monuments of religious art accompanied by two male figures, variously interpreted as the Lares or Dioscuri.<sup>68</sup> Without deciding the question of the correct or the primary interpretation, we may be sure that these representations are connected with, or derived from, the pre-Hellenic figure of the Πότνια θηρῶν and the Dioscuri.

This important fact brings our argument to a close: Acca Larentia is the Italian equivalent, or derivative, of the great mother-goddess, the Πότνια θηρῶν, known to have been worshipped, in prehistoric times, from the Indus valley to the shores of the Atlantic. She is the great mother of all life, from whom all living creatures derive their existence and to whom all must return once their short span of fleeting life has come to an end.

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<sup>63</sup> Paus. iv, 31, 9; cf. Nilsson, *Journal*, p. 145; *Minoan-Mycenaean Religion*, pp. 473 f.

<sup>64</sup> D'Arbois de Jubainville, *La Civilisation des Celtes*, Paris, 1899, p. 245; Frazer, *Balder the Beautiful* ii, London, 1935, pp. 24 ff.; Paul Sébillot, *Le Folk-Lore de France* iii, 112.

<sup>65</sup> Ignác Kunos, *Turkish Fairy Tales and Folk Tales*, translated from the Hungarian version by R. Nisbet Bain, London, 1901, p. 270.

<sup>66</sup> Ch. Picard, *Revue de l'histoire des religions* xcvi, 1928, pp. 60 ff.

<sup>67</sup> Aul. Gell. vii, 7, 8; Pliny, *NH.* xviii, 6; cf. Carcopino, *op. cit.*, pp. 105 f.

<sup>68</sup> On the confusion of Lares and Dioscuri cf. Waites, *loc. cit.*, pp. 252 ff.; Taylor, *loc. cit.*, p. 311; Marcel Bulard, *La religion domestique dans la colonie italienne de Délos* (Bibl. Ed. Franc. d'Athènes et de Rome) cxxxi, Paris, 1926, p. 191.

Inasmuch as the cult of the Πότνια θηρῶν covered a connected territory, its diffusion from some center may be taken for granted and accounted for as the work of roaming tribes. Still, it is interesting to note that a Mistress of Animals is known even to peoples who, in historical and near-prehistorical times, are not known to have been in communication with Asia or Europe. Thus the Eskimos believe in a Mother of Animals, supposed to live at the bottom of the sea and to control the supply of seals and fish.<sup>69</sup>

Artemis was not only a bear-goddess; she could and did assume many other animal forms. One of the most common of these was the deer. On this showing, and assuming that our deductions are correct, there should also have existed, in Northern Europe and Central Asia, a deer-goddess of much the same functions. That this inference is justified was shown, a few years ago, by Mr. J. G. McKay, in a paper read before the Folk-Lore Society.<sup>70</sup>

There may still linger, in the reader's mind, the question of how the she-wolf, the *lupa*, could ever assume maternal characteristics, a development in direct contradiction with the general reputation of that evil animal also in Italy — suffice it to recall the *lupa* of the first canto of Dante's great poem, such ominous derivatives as *lupanar*, and the Roman tradition according to which Acca Larentia was a woman of whom Puritans do not approve.<sup>71</sup>

The answer must probably be sought in the fact that by the first millennium of the pre-Christian era the bear had already disappeared from the greater part of the Italian peninsula, if it had ever existed there in a wild condition.<sup>72</sup> Thus the Πότνια θηρῶν could not very well be imagined in bear-shape and the only other large carnivore was accordingly substituted. That this conjecture is not altogether without foundation may be seen from the queer tradition according to which the *Lupa* treated the Twins in much the same manner in which the she-bear treats her own young: *et fungit lingua corpora bina sua!*<sup>73</sup>

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<sup>69</sup> L. Lévy-Bruhl, *Le Surnaturel et la nature dans la mentalité primitive*, Paris, 1931, pp. 448 f.

<sup>70</sup> *Folk-Lore* xliii, 1932, pp. 144-74; cf. also J. Whatmough, *JRS* xli, 1921, pp. 245-53; F. R. Schröder, *Germanisch-Romanische Monatsschrift* xvii, 1929, p. 411.

<sup>71</sup> Livy i, 10, 4; Plut. *Rom.* iv, 3; Serv. ad Verg. *Aen.* i, 273; Aur. Vict. *Orig. Gent. Rom.*, c. 21.

<sup>72</sup> Sir George C. Lewis, *An Historical Survey of the Astronomy of the Ancients*, London, 1862, p. 65, n. 241, denied the existence of wild bears south of the Alps. On the gradual disappearance of the bear from European folk-lore and its replacement by the wolf, cf. Kaarle Krohn, *Bär (Wolf) und Fuchs*. Aus dem Finnischen übersetzt von O. Hackman, Helsingfors, 1888, *passim*.

<sup>73</sup> Livy i, 4; Ovid, *Fasti* ii, 418.



## ECHINOS AND JUSTINIAN'S FORTIFICATIONS IN GREECE

THE site of Echinos (modern Achino) on the border between Thessalian Phthiotis and the territory of the Malians has, in spite of its rather impressive remains, attracted relatively little attention from archaeologists. Philippson's concise article in the *Realencyklopädie* and the brief description and discussion of F. Stählin<sup>1</sup> had been the only useful notices of the place until the publication of the results of M. Béquignon's recent travel and investigation in the valley of the Spercheios.<sup>2</sup> Since attention has again been directed to this site, it seems opportune to proffer some additional bits of information gleaned on two visits to Achino in the fall of 1937 and the winter of 1938.

To the generally excellent description of the site given by M. Béquignon (p. 300 f.) may be added a few observations. The accompanying photograph (fig. 1) will serve to give a clearer idea of the surrounding terrain and will make it obvious that the objection<sup>3</sup> to the incorrectness of Stählin's statement<sup>4</sup> that the walls enclose two eminences rather than only one, is correct. At the extreme right in the same photograph, certainly outside the circuit of the walls at any period, can be seen the foot of a gently sloping hill. The south and east slopes of this hill were evidently the necropolis for the city, for here I found a number of tombs which had been opened by the villagers. There were a number of such chambers, with rectangular entrances cut in the soft serpentine, as that shown in fig. 2, and one freshly opened tomb in the form of a cist, made of heavy blocks of stone, two blocks long and one block wide (fig. 3). I was unable to learn anything of the contents of these tombs which would aid in dating them.<sup>5</sup>

The hill from which the photograph for fig. 1 was taken lies about a half mile almost directly north of the acropolis. The limestone base of this hill was the source of the stone used in the original fortification of the city, and traces of the quarrying are still to be seen all over the south slope (cf. fig. 4).

There are no inscriptions of any consequence from Echinos, and chance finds of minor objects other than coins are apparently rare. Coins which I saw in the possession of villagers, and which were said to have been found on the site, bear testimony to its continuous habitation. There were several of the Thessalian Confederacy, one of Nero, one of about the fourth century, two of the tenth or eleventh, one Venetian, and one Turkish.

The most important remains of the site are certainly its walls, but the spoliation of these, noted by M. Béquignon between 1927 and 1933, is still going on at such a rate that they are not likely to last much longer. Between two visits a few months apart a large portion of the acropolis wall had been removed for building purposes.

<sup>1</sup> *Das Hellenische Thessalien*, Stuttgart, 1924, p. 186.

<sup>2</sup> *La Vallée du Spercheios des Origines au IV<sup>e</sup> Siècle*, Paris, 1937.

<sup>3</sup> Béquignon, *op. cit.*, p. 300.

<sup>4</sup> Stählin, *op. cit.*, p. 186.

<sup>5</sup> If the date of these burials could be determined, it would, indeed, give a limit for the maximum extent of the city in this direction for the period of the graves but, as I have already remarked, the hill is surely outside the circuit of the walls at any period, for it is hardly reasonable to suppose that a city of no greater consequence than Echinos would include so large a sweep within its walls.





FIG. 1.—ECHINOS FROM THE NORTH



FIG. 2.—CHAMBER TOMB AT ECHINOS



FIG. 3.—CIST TOMB AT ECHINOS



FIG. 4.—QUARRY AT ECHINOS



FIG. 5.—DETAIL OF NORTH WALL OF LARGE TOWER AT ECHINOS



FIG. 6.—PART OF CIRCULAR TOWER (?) IN EAST CITY WALL AT ECHINOS

M. Béquignon dates the construction of the walls to the fourth century B.C. (p. 302), and this dating would seem to be correct, to judge from the drafting of the stones and the style of construction in general (fig. 5).<sup>6</sup> If it is, as he believes (p. 302 f.) on the testimony of a Scholiast to Demosthenes, *Phil.* 3, 34, a Theban foundation, it seems not unlikely, as has been suggested by W. A. Oldfather,<sup>7</sup> that these fortifications were built under Epaminondas as part of his program of controlling the sea,<sup>8</sup> for Echinon is in a strategic position at the entrance to the Malian Gulf.<sup>9</sup> Thus these fortifications would be contemporary with those of Mantinea, Megalopolis, and Messene.

Yet, while the oldest period of building activity represented by the extant remains is of the time indicated, it is obvious that the walls have undergone many vicissitudes since that date and this is exactly the point with which I am concerned and on which something may be added to the descriptions of both Stählin and Béquignon. Probably the most drastic remodelling took place under Justinian;<sup>10</sup> in fact, this is the only such instance of which we have any account. The question as to what extent the remaining walls are in their original state, and how much they represent the results of later rebuilding, seems never to have been raised. The descriptions of both Stählin and Béquignon, and the latter's plan, leave the impression that what remains is chiefly of the fourth century period. From what Polybios says (9, 41) of the siege of Echinon by Philip V, however, and from what Procopius says of the condition of the fortifications in his time, one would hardly suppose that to be the case, and a careful examination of the remains in their present condition tends to confirm that supposition.

The wall construction here can best be considered with reference to one indisputably original and undisturbed piece of masonry in the large tower at the east end of the acropolis. Here (cf. fig. 5) is good, solid, isodomic construction, but it is almost the only such piece to be found on the site. Using this as a control we may proceed to the other remains. Beginning on the east, the first piece of wall preserved, just by the road south of the houses indicated on Béquignon's plan (opp. p. 300), in the form of an arc ca. 6m. long, is probably part of a round tower, possibly part of a gate, of the original construction (fig. 6). A few meters north from this begins the preserved portion of the east city wall. It runs at an angle of about 15° west of North, for approximately 100 m., and is preserved to a height of four courses in some places. Much of it, however, cannot be examined, because it runs in and under houses, serving as a foundation. At the south end, where it still stands free, the face, at least, seems undisturbed. Here the wall is about 1m. thick, with an inner facing of rough stones and a filling of rubble and mortar. The next point at which any trace is visible is at the juncture of the wall with the southeast corner of the

<sup>6</sup> For this photograph and for those used for figs. 5, 7 and 10 I am indebted to Professor W. A. Oldfather.

<sup>7</sup> *RE.* 17, 1936, p. 225 f.

<sup>8</sup> Cf. Ed. Meyer, *Gesch. d. Altertums*, 5, 461 and Beloch, *Gr. Gesch.* 2, 31, p. 196 f.

<sup>9</sup> Cf. the map in Stählin. This favorable location must, however, surely have been inhabited from very early times.

<sup>10</sup> Procopius, *de aedificiis* 4, 3, 5: ἐπὶ μέντοι Ἐχινάϊου . . . τοὺς περιβόλους ἀνανεωσάμενος, ἐν τῷ ἀσφαλεῖ ἐκρατύνετο. χρόνῳ τε καταπεπονηκότας μακρῶ εὐπετῶς τε ἄλωτους ὄντας, εἰ τις προσίοι.



FIG. 7.—LARGE TOWER AT ECHINOS FROM THE WEST



FIG. 9.—DETAIL OF EAST WALL OF ACROPOLIS AT ECHINOS



FIG. 10.—FREE-STANDING TOWER AT ECHINOS



FIG. 11.—TRANS-ISTHMIAN WALL NEAR SO-CALLED TEMENOS OF POSEIDON

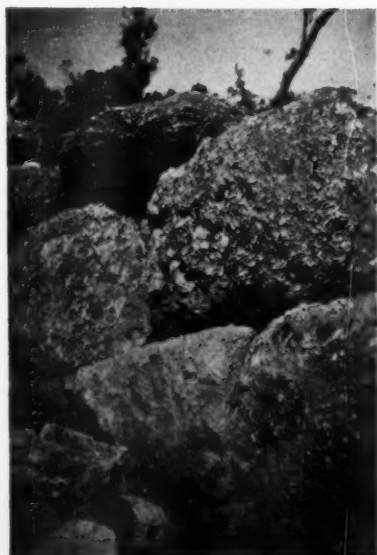


FIG. 12.—DETAIL OF WALL ON ACROPOLIS AT HERACLEIA IN TRACHIS



FIG. 13.—DETAIL OF EARLIER WALL AT POTIDAIA

tower T (on Béquignon's plan), where a piece ca. 8m. long, from most of which the facing has disappeared, leaving only the rubble and mortar backing, is preserved, running now ca.  $15^{\circ}$  east of North. The tower itself (cf. figs. 7 and 8) has very evidently been remodelled. The north wall of it is undisturbed (cf. fig. 5), but although the rest is built of the same large, regular blocks, they are laid without any regard for the bevelled edges, and are chinked up with the tile and mortar, so that it presents a very rough appearance. The same is true of the walls between compartments A and B, and the west wall of B, except where the latter joins the north wall, and there it is bonded in as the former is not. This north wall continued west, as is evidenced by rubble and mortar backing and by cuttings in the rock of the hillside, for ca. 14m. before deflecting ca.  $20^{\circ}$  to the south. From this angle it continued to meet the acropolis wall. A section of the acropolis wall ca. 25m. long, running northwest from a point near this juncture, is preserved to a height of four courses in some places (fig. 9). This section shows the same signs of reconstruction as do parts of the tower, and, moreover, it is constructed in the "emplecton"

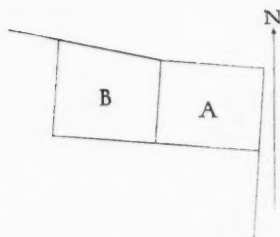


FIG. 8. - PLAN OF LARGE TOWER OF ECHINOS

technique, with rubble and mortar filling, which makes it obviously quite different from the original construction.

Further traces of the acropolis wall, while sufficient to determine its course, are scant. A hundred or so large blocks lie in confusion about the little chapel of Aghia Paraskeve (cf. fig. 1), at the foot of the north slope of the hill. Perhaps they were brought down from above for some building enterprise which was never carried out. There are, however, traces of the south wall of the acropolis, not indicated by Béquignon, beginning just below the church on the acropolis and following the contour of the

hill around to the west to where the wall would join the truncated portion indicated on his plan. Numerous blocks are preserved *in situ* along this line with the usual backing. About midway in this wall there is a tower of yet a different type of construction: medium-sized, undressed stones alternating with layers of tile, set in mortar.

About 100 m. below this acropolis wall and roughly parallel to it on the south and west slope of the hill there are traces of another wall, which is also not indicated by Béquignon. Here, too, there are a few blocks *in situ*, traces of rubble and mortar backing, and elsewhere cuttings for bedding in the rock of the acropolis. Toward the West, where this wall makes a bend to the North, there is a sizable piece of wall of small rough stones and mortar, of the type familiar from late Byzantine times,<sup>11</sup> but beyond this to the West and North there appear again occasional blocks *in situ*, and on the west side there are a few stones of a tower, ca. 5m. square, so joined as to suggest that they probably belong to the original construction.

A large, square tower, about on a line with this wall and close to the east city wall, seems not actually to have had any connection with either, so far as one can tell, for there is no indication that it was joined by a wall. Although it could, of

<sup>11</sup> This is apparently the section which Béquignon would attribute to Justinian's reconstruction (p. 302, n. 5).



course, have been joined to the wall without having been bonded into it, it does not seem to be aligned with anything else, and stands within the circuit of the walls. The tower is of a peculiar construction, courses of regular wall blocks alternating with courses of small stones and tile (fig. 10).

One must assume that there was also a west city wall, running approximately North and South, corresponding to that on the East, but of this I saw no trace. This disposition of the walls produces the tripartite division of the enclosure, familiar from many other places, as e.g. Larissa Kremaste.<sup>12</sup>

The question I should like to raise is, whether most of the surviving fortification walls at Achino, aside from the portions I have already indicated as original and undisturbed, are not part of Justinian's reconstruction. Unfortunately, no one has ever seriously undertaken the task of identifying traces of Justinian's building activities in Greece on the sites enumerated by Procopius in the *de aedificiis* 4, 2-3, and it seems to have been the style to identify any obviously late construction on any of these sites as the work of Justinian, especially if it were not built of good ashlar masonry. That this is true is due, of course, to lack of interest in post-classical remains, rather than to lack of information. Choisy<sup>13</sup> has described accurately the Byzantine practice in the construction of ashlar masonry, and Ch. Diehl<sup>14</sup> enumerates many examples of such construction, due to Justinian in Africa. Choisy (*loc. cit.*) asserts that Byzantine ashlar masonry is usually constructed in the technique which Vitruvius (2, 8, 7) calls "emplecton," that is, two facings of ashlar masonry with a filling between to which the facings are bound by occasional header blocks, and that may be illustrated, e.g. from a Justinianic structure at Kasr-Maizhra, as reproduced by Diehl.<sup>15</sup> This type of construction, used with a rubble and mortar filling, gave much greater strength and solidity to a wall.

That this technique was used in some cases in Africa does not, of course, mean that it would be in all cases in Greece. Whether it would be used or not might depend, in the first place, one might suppose, upon the availability of material, that is ready-cut stone, for under Justinian's almost incredible building program it is hardly likely that the state economy would stand any activity so expensive and time-consuming as quarrying, even if the threat of barbarian invasion had not been so immediate.<sup>16</sup> Such material would, however, probably be available from older structures, whether dilapidated or not, on many of the sites in Greece.

An examination of structures in Greece, already known as Justinianic, should also, especially where it bears out what has been suggested for Echinós, give some indications as to the characteristics to be watched for on other sites. One site fortified by Justinian in Greece, that is the Isthmus,<sup>17</sup> has recently been carefully studied. H. Megaw<sup>18</sup> has shown, contrary to what had been generally supposed, that the walls of the so-called temenos of Poseidon, as well as the remains of the trans-isthmian

<sup>12</sup> Cf. Stählin, p. 183, fig. 25. Dodwell (*Tour through Greece* 2, London, 1819, p. 80), says of Echinós: "In some parts it has been fortified by triple walls," but it is not exactly clear what he means by the statement.

<sup>13</sup> *L'Art de Bâtir chez les Byzantins*, Paris, 1812, p. 11 f.

<sup>14</sup> *L'Afrique Byzantine*, Paris, 1896, pp. 185 ff.

<sup>15</sup> *Op. cit.*, pp. 148-49, figs. 1 and 2.

<sup>16</sup> A good instance of Justinian's demolishing of older, inadequate structures and reusing the materials from them is given by Procopius, *de aedificiis* 4, 1, 28 f. Cf. also Diehl, *op. cit.*, p. 172 f.

<sup>17</sup> Procopius, *de aedificiis*, 4, 2, 27.

<sup>18</sup> *BSA*, 32, 1931/32, pp. 69 ff.



wall, date from the time of Justinian. He describes the construction of the wall of the enclosure as follows: "A single structure is found throughout: a double wall of large limestone blocks with a rubble filling. The facing blocks are set in mortar which corresponds to that used to bind the rubble core. . . . In general, the long sides are parallel to the direction of the wall, but at intervals the facing is bound to the core by header blocks." Fig. 11 shows a section of the trans-isthmian wall just east of the enclosure, which can be seen in the background.<sup>19</sup>

Less certainly due to Justinian are the older portions of the enclosure wall of the monastery of Daphni, between Athens and Eleusis. Millet<sup>20</sup> argues, from a comparison with other monasteries of the same period in Syria and Africa, and from the style of various decorative architectural fragments from the earlier church, that the earlier portions, in which we are here interested, date from the sixth century, and believes, moreover, that they are quite possibly Justinianic in date, at least. These walls are built<sup>21</sup> of large blocks of reused conglomerate, chinked with tile and small pieces of stone. The two faces of the wall have little space between for filling.

From this evidence, then, the characteristics we should look for in ashlar masonry of the time of Justinian are: (1) reused materials; (2) chinking of tile or stone between the blocks; (3) "emplecton" technique; (4) rubble and mortar filling. On all these scores, at least, the question raised concerning Echinus above can be answered positively, and in view of the fact that the only restoration of which we know at Echinus is that specifically mentioned by Procopius, the ascription to Justinian of most of the fortifications now standing there is likely to be correct.<sup>22</sup> The most convincing single factor in the case of the long stretches of the wall where only scattered facing blocks remain is the presence of rubble and mortar backing. Of course, the use of mortar is no absolute criterion, even if we knew that no repairs had been made between the time the walls were built and the reign of Justinian, for its properties were well known, if it was not widely used, at least by the fourth century B.C.,<sup>23</sup> but the fortifications of Mantinea, Megalopolis, and Messene,<sup>24</sup> which are presumably contemporary with the earliest period at Echinus, show no use of mortar for filling or otherwise. It is unfortunate that more accurate observations as to the quality and characteristics of ancient mortar have not been generally made, as they were in the case of the structures on Acrocorinth.<sup>25a</sup> While it must probably be allowed that mortar would vary considerably in composition from place to place, rather than from time to time, it may eventually be possible to establish some chronological criteria. It is my observation from those sites with which I am familiar that the mortar of those structures which allow of a presumption of a sixth-century date

<sup>19</sup> Cf. also Megaw's fig. 1, *ibid.*, p. 70.

<sup>20</sup> *Le Monastère de Daphni*, Paris, 1899, pp. 6 ff.

<sup>21</sup> Millet, *op. cit.*, p. 5.

<sup>22</sup> This does not, of course, apply to the tower on the south wall of the acropolis. The free-standing tower (fig. 10), which Béquignon (p. 302, n. 5) calls modern, would seem to have a better right to be called Justinianic.

<sup>23</sup> Cf. Theophrastus, *de lapidibus*, 64-67. Philo of Byzantium (4, 80, 21 f.), in the early second century B.C., speaks of the use of mortar as quite the usual thing.

<sup>24</sup> G. Fougères, *Mantinee et l'Arcadie Orientale*, Paris, 1898, pp. 141 ff.; W. Loring, "Excavations at Megalopolis," *JHS. Supplementary Papers* 1, 1892, p. 109; J. G. Frazer, *Pausanias* 3, p. 430 f.

<sup>25a</sup> A. Bon, *Corinth*, Cambridge, 1936, vol. 3<sup>d</sup>, pp. 162 and 272.

usually has a rather high lime content, giving it a white appearance. It seems also to be softer and more friable than that of later times.

With these facts in mind, I have taken the opportunity to examine, rather hurriedly in some instances, to be sure, remains of fortifications on several sites mentioned by Procopius in the *de aedificiis* (4, 3, 5). He speaks of Metropolis and Trikkala (modern Palaiokastro and Trikkala) among those sites refortified in Thessaly. Of the remains at the former place, mentioned by both Stählin (p. 128) and Béquignon,<sup>25</sup> I was able to find no vestige in March, 1938. A sculptured Roman sarcophagus, half-buried in the earth in a field near the village, and a few stones in the churchyard were all there was to be seen. Stählin does remark, however, that the walls were built in "emplecton" technique. Although, as is frequently stated,<sup>26</sup> nothing remains visible of the ancient fortifications at Trikkala, I saw in the midst of the débris from some recent demolition of part of the late Byzantine works on the west side of the acropolis several large, dressed wall blocks, and it is quite possible that at least portions of older construction still exist in the core of the later wall.

Of Justinian's fortifications of the pass at Thermopylae, mentioned by Procopius (4, 2, 1-16), Béquignon proposes tentatively<sup>27</sup> to recognize considerable remains near the east gate between the site of Alponos and the baths. This identification is not, however, convincing, and while the wall is substantial, it is rather carelessly built. Thermopylae must surely have been at least as important a spot in Justinian's chain of fortifications as was the Isthmus, and in view of the fact that the construction of these works on various sites shows a fairly consistent regularity elsewhere, this variation would seem to require some explanation. Lack of readily available material might be alleged as a reason, but there was probably as much available here as there was at the Isthmus. At any rate, the identification must remain questionable at best.

From the rather cursory examination I was able to make of the fortifications of the acropolis of Herakleia in Trachis,<sup>28</sup> it is hardly safe to draw any conclusion. There are, however, some signs of reconstruction. On the west side of the acropolis the use of grey limestone blocks along with others of conglomerate (fig. 12), and the use of mortar in the backing of the same wall, might suggest this.

Last of all the cities refortified by Justinian in Greece, Procopius mentions Potidaia (4, 3, 20-26), saying that the emperor restored the wall across the narrow neck of the peninsula of Pallene. This had fallen into such disrepair that, not long before, it had offered no resistance at all to a band of invading Huns. A. Struck was the first scholar in modern times to see and describe the fortifications here as they still exist, except where they had to be removed when the Isthmus was pierced by a canal.<sup>29</sup> The existing wall is evidently, as Struck believed, quite late, but where the line of this wall is cut by the road from the ferry across the canal there are to be seen some blocks of an earlier wall, with a slightly different orientation, beneath the later (fig. 13). They are of rather hard, light-greyish, limestone conglomerate, in "emplec-

<sup>25</sup> *Guide Bleu, Grèce*, Paris, 1932, p. 284.

<sup>26</sup> Stählin, *op. cit.*, p. 119.

<sup>27</sup> *R.A.* 4, 1934, p. 18 f.

<sup>28</sup> Procopius, *de aedificiis*, 4, 2, 17-22.

<sup>29</sup> *Makedonische Fahrten, I Chalkidike*, p. 43 f. Accurate record of all ancient remains was, of course, made by the Archaeological Service before any demolition was carried out. Mr. Kotzias was kind enough to show me the plan made at that time.

ton" technique, with rubble and mortar filling, and so have some claim to being considered as Justinianic.

Although the evidence here presented is certainly fragmentary and inconclusive, it is hoped that these observations may serve to throw some useful light on a little known subject and that eventually further investigation may serve to clarify some of the points in question.

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## THE ORIGIN OF SOME UNIDENTIFIED OLD KINGDOM RELIEFS

THROUGHOUT the nineteenth century, which witnessed the awakening of scientific interest in the history and art of ancient Egypt, little effort was made to ascertain the source of the many fragments of Old Kingdom reliefs which found their way into European museums. The painstaking records kept by Lepsius, and to a lesser degree the notes made by Mariette, are outstanding exceptions to this careless treatment of the monuments, and anticipate the careful documentation provided by the excavator at the present day. The final publication of Mariette's excavations at Saqqarah was never completed and we must depend upon his rough notes published after his death. His most interesting reliefs were to have been represented by illustrations which were never prepared. Therefore, much of the most important material is that to which the briefest reference is given. While many of these reliefs were brought to the Cairo Museum and can be identified in Mariette's *Mastabas*, other pieces passed into European collections and a few pieces came to America, such as the fragments from the mastaba of Semenekhuw-ptah in Brooklyn from the Abbott Collection of the New York Historical Society. Most of the sculpture found by Lepsius was removed to the Berlin Museum, where it can be easily identified from the descriptions and drawings in his great *Denkmäler*. That which was left *in situ* at Saqqarah has either disappeared, or still lies buried, while the Giza chapels have been re-excavated by Prof. Junker and Dr. Reisner. Very little of the Old Kingdom material published by Lepsius is, therefore, to be found anywhere outside Egypt, except at Berlin. An outstanding exception is the tablet of Sethuw which came into the possession of Mr. Abbott and passed from there into the Brooklyn Museum with the collection of the New York Historical Society. Curiously enough, while the greater part of the chapel of Sethuw is still standing at Giza (G 4710), the lower part of the false-door from which the Brooklyn tablet came was taken to Berlin.

Other pieces, some of them from mastabas later excavated by Mariette, such as the reliefs of Shery in Florence, Oxford (presented in 1683!), the British Museum and Aix-en-Provence, were brought to Europe at some undetermined early date. Still other fragments seem to have been hoarded from an earlier time by illicit excavators and dealers and only made their appearance in the early years of the present century. An extreme case of the scattering of reliefs from the same tomb is presented by the Giza chapel of Nofer (G 2110), the remains of which were excavated by the Harvard-Boston Expedition in 1905. The plunderers had left one door-jamb and parts of the inner walls, most of which are now in Boston. The other door-jamb had been taken to the Louvre, while parts of the east and west walls were in Copenhagen and the tablet of the false-door was in the Barracco Collection in Rome.<sup>1</sup> Some hint of the time that the tomb was plundered is given by the fact that the Barracco piece was a gift of the Khedive Ismaïl to Prince Napoleon (i.e., probably some time be-

<sup>1</sup> See the drawings of the chapel with the fragments restored to their proper places in Dr. Reisner's forthcoming volume, *History of the Giza Necropolis* i.

tween 1863 and 1870).<sup>2</sup> The two large wall fragments were already in Copenhagen in 1889, but I have been unable to determine when the door-jamb reached the Louvre.<sup>3</sup> The fragments of painting which formed part of the scene containing the famous geese in the tomb of Atet at Medum were removed by Vasalli, one of Mariette's assistants, and are almost as widely scattered as the Nofer reliefs.<sup>4</sup> Something similar has also occurred in the case of the reliefs from the chapel of Ny-ankh-nesuwt. This was presumably at Saqqarah and is to be dated probably to the first half of Dynasty VI from the names of the subsidiary figures ("Unas-lives," "Isesy-shines," "Tety- . . ."). Part of these reliefs are still in the possession of Dr. Jacob Hirsch in New York, and from photographs which he kindly allowed me to examine, it is possible to identify pieces in the Museums of Cleveland, Kansas City, Worcester, Honolulu, and the Fogg Museum.<sup>5</sup>

The identification of many of these stray fragments has been undertaken, particularly by Capart in a succession of publications, by Borchardt in the *Catalogue Général* of the Cairo Museum and Miss Rosalind Moss in the *Topographical Bibliography*. There are still several fragments, however, which can either be fitted to a more famous piece or assigned to a known tomb at Saqqarah. In the following pages I should like to set forth the evidence for the assignment of these pieces to the tombs of Mery, Tep-m-ankh and Akhet-a'a at Saqqarah. I should like also to add a few fragments which, owing to the division of the Western Cemetery at Giza between two Expeditions, fell to the share of the Harvard-Boston Expedition, although it is now evident that they had been dragged by ancient plunderers from the well known tomb of Prince Hemiwn (G 4000) and the chapel of Akhy (G 4750), both excavated by Prof. Junker.

#### 1. THE RELIEFS OF MERY

In 1908, Raymond Weill called attention to three pieces of relief in the Louvre from the tomb of a man named Mery.<sup>6</sup> These are grouped under the number B 49 in De Rougé's Catalogue of 1876, where it is said that they were found by Mariette in the tomb of Mery. To these pieces Weill added a small fragment in 1910 which he purchased, together with a lintel from the Saqqarah tomb of Kha-bauw-sokar.<sup>7</sup> This strengthens the logical assumption that the tomb of Mery, excavated by Mariette, was in the northern part of the Saqqarah field, an assumption which is made practically certain by the fact that the Cairo piece described below is entered in the *Livre d'Entrée* of the Cairo Museum as "*provenant d'un hypogée d'Abusir, 1858.*"

<sup>2</sup> Barracco and Helbig, *La Collection Barracco*, 1893, p. 11.

<sup>3</sup> It does not appear in Paul Pierret's revision of de Rougé's *Description sommaire des salles du Musée Égyptien* in 1895. Could it also have been a possession of Prince Napoleon?

<sup>4</sup> See the reconstruction of this wall, as well as other fragments in *JEA*, 1937, pp. 17 ff.

<sup>5</sup> See the *Bull. Cleveland Museum of Art*, December, 1930; Ranke, *The Art of Ancient Egypt*, pl. 204 (Kansas City); *Bull. Worcester Art Museum* xxiii, p. 9; *Honolulu Academy of Arts*, 1937, p. 59; *Bull. Fogg Art Museum*, March, 1936, p. 30.

<sup>6</sup> *Ile et IIIe Dynasties Égyptiennes*, p. 300, gives a drawing of the tablet. Details of the large figure of Mery are published in photographs in Boreux, *La Sculpture Égyptienne du Louvre*, pl. VI, and "Tel", *Photographic Encyclopædia of Art* i, pl. 7. The minor figures on the thickness of the stone are drawn in Clère, *Mélanges Maspero*, pl. accompanying, p. 753.

<sup>7</sup> *Sphinx* xv, p. 6. For the identification of the tomb of Kha-bauw-sokar with Firth's mastaba No. 3073 in the Archaic Cemetery at Saqqarah, see Reisner, *Tomb Development*, pp. 203, 267, 387.



Objects from the Archaic Cemetery are often said to come from Abusir, since it overlooks the modern village of Abusir, while the site of the Fifth-Dynasty Pyramid field usually given that name is hardly more than a mile away.

The Cairo relief to which this provenance is given formed the side of the inner niche of a false-door (fig. 3). It shows the figure of a woman with the same name as the

wife of Mery, Ny-wazet-ankh. The little naked figure of a boy accompanying her may not be the same as the lad on the

Louvre relief, for his name is Mery-ib, instead of Mery. The Cairo relief is not only identical in style with the Louvre relief, but it fits a second relief in the Field Museum in Chicago (fig. 3) which formed the back of the adjoining outer niche of the false-door. This shows a large figure of Mery leaning on his staff in the same attitude as in the Louvre relief. It should be noticed that the construction is similar, in that the two Louvre slabs join in the same way as do the Chicago and Cairo pieces, forming

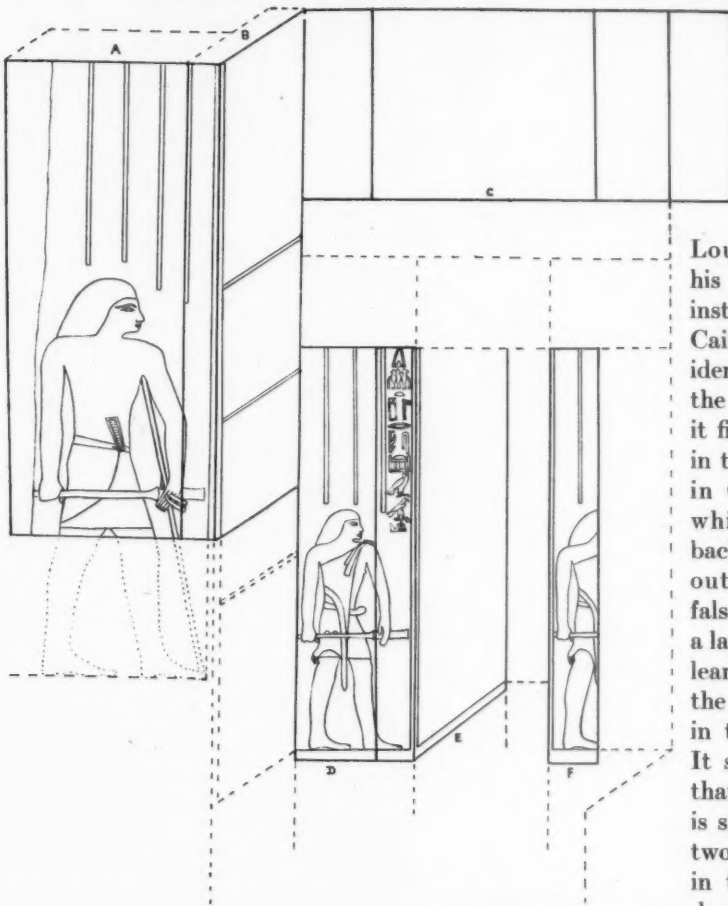


FIG. 1.—SUGGESTED RESTORATION OF BLOCKS OF MERY, SCALE CA. 1/20

a junction on the outer faces that crosses the man's arm and staff. This, added to the great similarities of style and representation, makes it very probable that all the pieces belong to the same false-door. The three Louvre pieces would then form the west wall of the chapel south of the false-door (fig. 4), the south side of the outer niche (fig. 4) and the tablet over the false-door (fig. 2). The Chicago piece and the adjoining narrow edge of the Cairo slab would then form the back of the outer niche on the south side, while the other surface of the Cairo piece forms the south face of the inner niche. This arrangement can be more clearly seen in the reconstructed drawing (fig. 1).



FIG. 2.—RELIEF OF MERY: STONE C IN THE LOUVRE (PHOTOGRAPH BY COURTESY OF DR. DRIOTON)

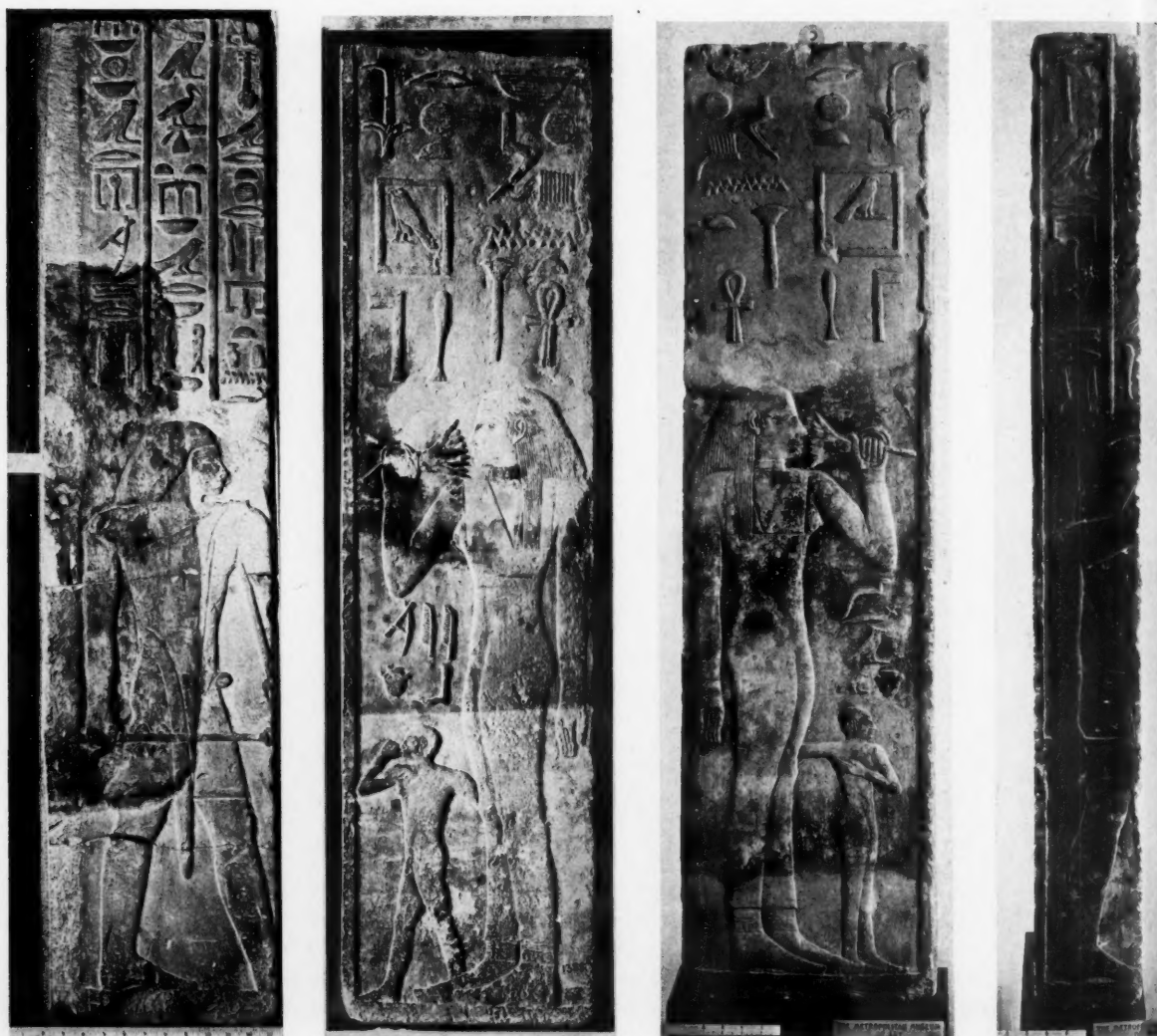


FIG. 3.—RELIEFS OF MERY. ON LEFT, STONE D IN CHICAGO (COURTESY OF THE FIELD MUSEUM); STONE E IN CAIRO. ON RIGHT, STONE F IN NEW YORK (COURTESY OF THE METROPOLITAN MUSEUM)



FIG. 4.—RELIEFS OF MERY: STONES A AND B IN THE LOUVRE (PHOTOGRAPHS BY COURTESY OF DR. DRIOTON)

Clearly forming a pendant to the Cairo piece is a slab of the same size in the Metropolitan Museum which shows an identical figure of Ny-wazet-ankh, this time accompanied by a daughter, Zefa-ib-she (fig. 3, on right). The Metropolitan figure faces to the right, while the one in Cairo faces to the left, and it seems almost certain that they must flank each other on the side faces of the inner niche, both women facing out into the chapel, as is customary. The Metropolitan piece bears on its outer face the back of a figure similar to that on the Chicago piece, but also facing to the right (fig. 3, on right). A missing block on the right would correspond to the position of the Chicago piece, with the same joining of flat slabs as on the other side. Although I know of no other case where both figures on the backs of the outer niche face in the same direction, I can think of no other solution than to place this figure on the north side of the back of the outer niche. A glance at fig. 1 will show that with the stones thus arranged the missing drum would close the space above the women's figures in the inner niche, but that the flat faces of its supporting pieces would provide sufficient space on the backs of the outer niche for the missing upper parts of the columns of inscription on the Chicago and New York pieces. I am unable to suggest a placing for the small Louvre fragment. It has only a fragmentary part of two vertical columns of titles, each ending in the name of Mery and arranged differently from the inscription on the outer face of the Louvre stone. It is therefore unlikely that it was over a figure flanking that in the Louvre. Such a figure probably existed, since most Saqqarah chapels in this district are of cruciform type, with the false-door in the middle of the west wall and the entrance opposite it in the middle of the east wall. Restored thus, with flanking figures on each side of the niche, the chapel would have had a width of about 2.30 m., which accords well with other chapels found by Mariette. The small Louvre fragment could have come from one of the other walls of the chapel, which presumably were decorated.

While I think the reader will agree with me that further argument is not necessary to prove that these various fragments all come from the same tomb, he will undoubtedly notice that there are two serious objections to the reconstruction shown in fig. 1. The first has already been mentioned — the fact that the two figures of Mery on the back of the outer niche face in the same direction. While I admit that this occurs in no other case, I can see no other possible combination of the stones. The creation of two niches does not solve the problem, because two figures facing out on the back of the outer niche are as unheard of as two figures facing the same way. They should both face in toward the inner niche. The second objection is not so serious as the first, but it is none the less troublesome. This is that no amount of juggling with the space to be restored for the cross-bar and drum will bring the base-line of the large figure on the west wall at the same level with the figures on the backs of the outer niche and sides of the inner. By restoring an extra figure below the scribe on the side of the outer niche, it is possible to bring this to the same line as the adjoining back of the outer niche, but the large figure on the west wall stands on a base line some centimeters above this. While this is by no means impossible, it is unusual. I offer the accompanying restoration in the hope that a better arrangement may occur to someone else. I am myself convinced that the pieces all belong together



in one false-door, because of the similar use of adjoining flat slabs in the construction, as well as the identity in style.

Weill dated the reliefs of Mery to the reign of Chephren, because of the elements of palace-façade panelling on the flanges of the tablet. Since this and the similar tablet of Shery in Oxford resembled two stelae in the British Museum of a man named Thethy, who was a priest of Chephren, Weill assigned all three to Chephren's reign. It is not certain that the British Museum stelae, which are entirely carved in sunk relief, are as early as the time of Chephren, and I am not convinced that the occurrence of palace-façade panelling on the tablet is sufficient evidence for dating. Nevertheless, for other reasons, I am inclined to accept Weill's dating of the chapels of Shery and Mery to about the middle of Dynasty IV. Although the drum and cross-bar of the Cairo stela of Shery are in sunk relief, the lower part of this niche and other fragments from his tomb (particularly the large figures in Aix) are in a heavy bold relief which resembles that of Mery.<sup>8</sup> It is a slightly provincial style that one might expect to find continuing the heavy bold reliefs of the transitional period from Dynasties III-IV at Medum, Dahshur and Saqqarah, at a time when greater technical dexterity was being shown in the new royal cemetery at Giza. Also, the use of the linen list on the tablet is rare after the reign of Chephren. That of Nofer (G 2110) of that time is not unlike Mery's. It is difficult to place the Saqqarah tombs of Dynasty IV, because so few have been preserved, but they retained the simple chapel of cruciform type with either a palace-façade stela or a plain false-door in the west wall. I should group the reliefs of Mery and those of Shery with the cruciform chapel of Thenty (Mariette B 1), the wooden panel of Mer-ib in the Louvre (Capart, *Documents* ii, pl. 25), the chapel of Ka-m-heset (Murray, *Saqqara Mastabas* i, p. 5) and the paintings in Firth's mastaba 3080. This is a very short list which should be increased by further excavation. Of the reliefs, the sculpture of Mery is certainly the finest in this group.

## 2. THE CHAPEL OF TEP-M-ANKH

A block in Cairo (No. 1556),<sup>9</sup> from the chapel of Tep-m-ankh excavated by Mariette (*Mastabas*, D 11), has long been known for its amusing and remarkable scene of boys and monkeys which calls to mind the earlier panels of children playing with animals at Medum.<sup>10</sup> It has been suggested that another block in Cairo (No. 1541) and two pieces in University College, London, also came from this tomb,<sup>11</sup> but no attempt has been made to fit these various fragments together. Mariette's brief description of the tomb suggests that these reliefs come from the east wall of a long corridor which opened at its southern end into an east-west offering room. A large false-door, bearing the name of Tep-m-ankh, which formed the west wall of this offering room was brought to Cairo (No. 1564), as were two stelae from the west wall of the corridor. The southern stela was prepared for the wife Nuwb-hetep (No. 1415), while the northern door was inscribed with the name of the son, Hem-min (No. 1417).<sup>12</sup> Tep-m-ankh was a priest of Cheops and Mycerinus, and a priest in the

<sup>8</sup> *Mon Piot*, xxv, pp. 273 ff, pl. 22.

<sup>9</sup> Maspero, *Musée Égyptien* ii, pl. XI.

<sup>10</sup> Petrie, *Medum*, pls. XVII, XXIV.

<sup>11</sup> Borchardt, *Catalogue Général* xlvii, pl. 52; Capart, *Récueil de Monuments* i, pls. XII, XIII.

<sup>12</sup> Borchardt, *op. cit.*, pls. 19, 20.



pyramid temples of Sneferuw, Chephren, Mycerinus, Weserkaf and Sahura, while his son was a priest of Mycerinus and served in the pyramid temple of Weserkaf. It is not improbable that this tomb was decorated in the reign of Sahura. Certainly it belongs to the first half of Dynasty V.

One of the important titles held by Tep-m-ankh is *šd,wtj md,t ntr pr-*; (Sealer of the Divine Book of the Palace). In fact, it is the only title given to him in the inscription on the wife's stela which refers to the preparation of this stone for her. Therefore, it seems possible that a relief in the Musée Guimet in Paris which belonged to a man bearing this title and with the partly destroyed name: . . . -m-ankh also comes from Mariette's tomb D 11.<sup>12a</sup> In common with Tep-m-ankh he also was a *hry-šst*, and *hm ntr* of a pyramid or sun temple, the name of which is unfortunately destroyed. The block shows the upper part of a standing figure who is "viewing the gifts (*ndt-hr*).<sup>13</sup> This implies the presentation of food offerings or live animals in the registers to the right, of which parts of two are preserved. A fragmentary figure of an attendant heads each register. On such slight evidence it is impossible, from Mariette's brief description, to assign the block to a position in the chapel. It is equally impossible to prove that it comes from this chapel, although the possibility remains likely.

The blocks in Cairo and University College can be more confidently assigned to the east wall of the corridor. In fact, with the assistance of a smaller piece now in Brussels, it is possible to fit them together to form a considerable portion of the wall surface. A glance at fig. 5 is sufficient, I think, to convince one that these are joined correctly. The Brussels piece<sup>13</sup> was formerly in the von Bissing Collection. It was purchased together with two other small fragments.<sup>14</sup> One of these, showing part of two figures pulling the cord of a bird-trap, cannot be placed for certain in the tomb of Tep-m-ankh, but the other comes from the same east wall as do our other fragments. It shows part of two small figures of women, with their names Chemet and Pepy, which are described by Mariette as standing behind the large figure of Tep-m-ankh on that wall. The Brussels fragment shows the lower part of the figures of scribes and peasants in the judgment scene on the Cairo block No. 1541, where the farmers are being dragged before the stewards of the estate because of their failure to pay the taxes. In the second register, a man has taken a fish from a large pile and is handing it to a second man on the Cairo block No. 1556. This scene of barter adjoins the representations of the boys with baboons, and is continued in the lower register on the University College block, where various objects are being exchanged at market. The craftwork scene and the sailing boat on the other University College block (fig. 6) cannot be joined to these other fragments, but Mariette's description seems to make it certain that it comes from this wall.

Curiously enough, among the reliefs found recently by Prof. Selim Hassan in the causeway corridor leading to the Unas temple at Saqqarah, there is an almost exact parallel to this scene, although the various elements are differently grouped. In

<sup>12a</sup> *Annales du Musée Guimet* 32, pl. LXV.

<sup>13</sup> *Bulletin des Musées Royaux d'Art et d'Histoire* x, p. 138.

<sup>14</sup> *Reliefs des alten und mittleren Reichs aus Sammlung von Bissing* ii, *Bulletin van de Vereeniging tot Bevordering der Kennis van de Antieke Beschaving Te's-Gravenhage* ix, No. 2, pp. 5, 6, figs. 3-5.



the Unas reliefs only the lowest register of the wall is preserved and here are shown, on the left, men fashioning metal vessels (fig. 8). Then follows a man cleaning fish and a man who trades two cakes (?) for fish. This is separated from a further scene of barter by a man and a boy who hold two baboons on a leash, while the man takes a head of lettuce from a great basket of provisions similar to one in the Tep-m-ankh scene. Both the representation of the baboons in this connection, and the men trading various articles on the right, closely resemble the treatment of the subject in the Tep-m-ankh scene. The Unas relief is certainly later than the one of Tep-m-ankh, so that the latter cannot have been copied from the royal example. Both seem to go back to an earlier lost original.

### 3. THE ARCHAIC CHAPEL OF AKHET-A'A

The sculpture from the tomb of Akhet-a'a was collected by Weill and published in his *Ile et IIIe Dynasties Égyptiennes*, pp. 262-273, pls. VI, VII. The best known piece is a beautiful door-jamb in the Louvre,<sup>15</sup> but there is also in the Louvre a fragment from the opposite jamb of the chapel entrance, while in Berlin are pieces of a false-door and a fragment of a statue. The Louvre pieces B 1 and 2 have long been in that collection, that is, as early as the 1849 edition of de Rougé's Catalogue, and their source is unknown. Two of the four Berlin fragments from the false-door were found by Lepsius, built into a house in the modern village of Abusir,<sup>16</sup> but whether the other two pieces and the statue came from the same place, I do not know. I think it can be taken as fairly certain that these reliefs come from one of the cruciform chapels of the nearby Archaic Cemetery at Saqqarah. In style they are closely akin to the false-doors of Kha-bauw-sokar and Hathor-nefer-hetep. They are somewhat less nearly allied to the Third Dynasty wooden panels of Hesy-ra and the royal reliefs of Zoser. On the other hand, they begin to show certain characteristics of the bolder reliefs of Iy-nefer, Firth's No. 3076 and Methen. I should place them with the reliefs of Kha-bauw-sokar, at the beginning of that series of monuments at the close of Dynasty III which ended in Dynasty IV with the Medum sculpture of Ra-hotep.

The Ägyptologisches Institut of the University of Leipzig has a small fragment with three vertical lines of inscription which I believe belongs with these other pieces (fig. 7). In size (50



FIG. 7.—FRAGMENT OF RELIEF IN LEIPZIG  
(PHOTOGRAPH BY COURTESY OF PROF.  
WOLF)

<sup>15</sup> See "Tel," *Photographic Encyclopaedia of Art* i, pls. 8, 9.

<sup>16</sup> Lepsius, *Denkmäler, Textband* i, p. 138.

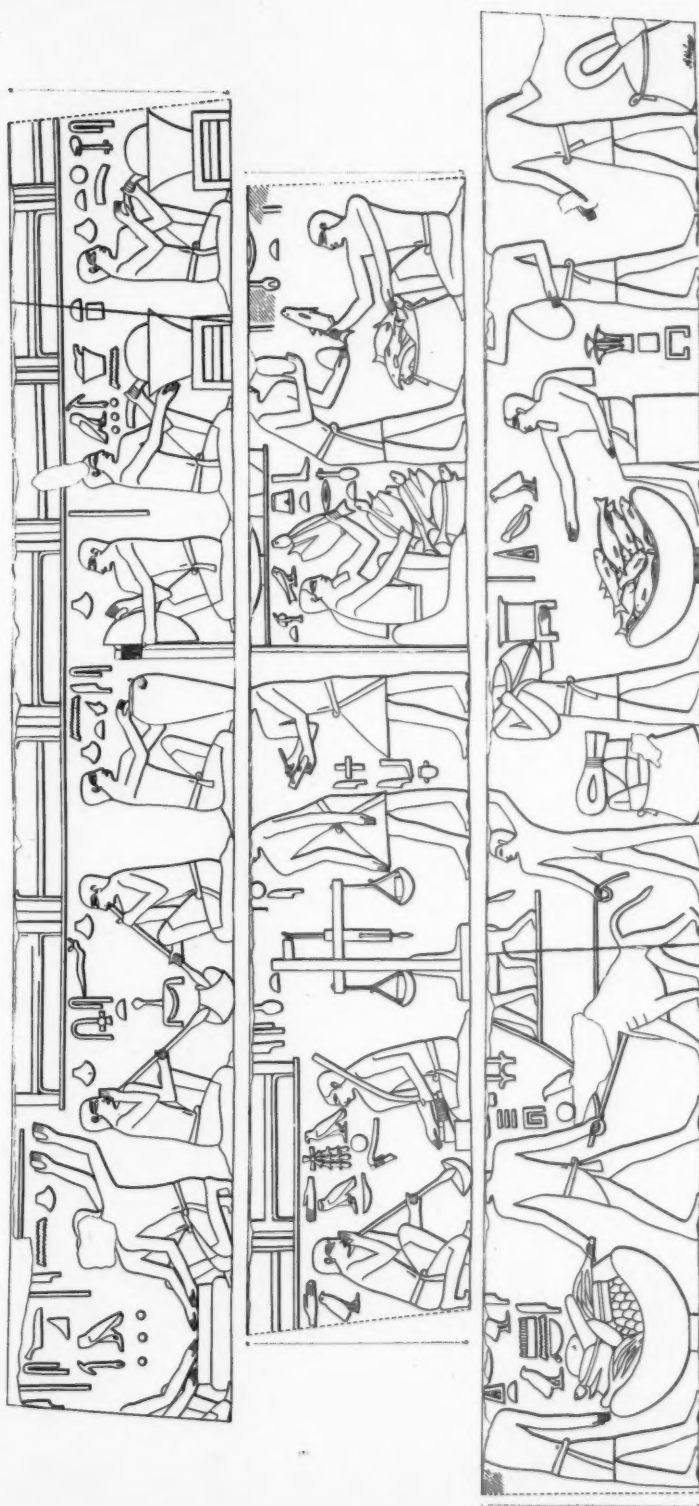


FIG. 8—RELIEFS FROM THE CAUSEWAY OF KING UNAS (ANNALES DU SERVICE DES ANTIQUITÉS 1938, PL. XCVI)



cms. high by 24 cms. wide), in the cutting of the relief and drawing of the hieroglyphs, and in the titles given in the inscription, it seems to form a part of the same false-door as the Berlin stones. I would suggest that it stood at the back of the inner niche (fig. 9). The stone was purchased in Egypt in 1925, and I should not be surprised if it had formed part of the same cache of long excavated stones from which came the lintel of Kha-bauw-sokar and the Mery fragment bought by Weill in 1910. The titles on this stone do not all appear on the Berlin pieces, but nearly all are to be seen on the Louvre door-jambs, or upon the inscription on the lap of the statue in Berlin. By using the Leipzig piece and the titles on the Louvre jambs, it is possible to arrange the Berlin blocks in what seems to be their correct order at the sides of the inner niche and the back of the outer niche. Too much is missing to attempt a complete restoration of the inscription, and only the relative position of the Leipzig piece can be suggested in the back of the niche. The titles have been studied by Weill, Pirenne and others, but we still remain largely in the dark as to the actual functions signified by them.

Akhet-a'a served as priest of a temple of Neb-ka, who has been tentatively identified as Sa-nekht and placed as the second king of Dynasty III. The fact that Shery, whose tomb, as we have seen, is probably to be dated about the middle of Dynasty IV, served as funerary priest to two kings of Dynasty II, Peribsen and Sened, shows that we can be certain only that Akhet-a'a's tomb is no earlier than the reign of Neb-ka. It is to be noted that while Shery's office was a funerary one in connection with dead kings, Akhet-a'a's priesthood in a temple, the name of which is incompletely preserved, might have been held during the king's lifetime. The archaic style of Akhet-a'a's reliefs suggests that they are to be placed no later than the end of Dynasty III, and it is not unlikely in this case that Akhet-a'a began his career under the king whose name is mentioned in his tomb.

#### 4. THE RELIEFS OF HEMIUWN

The huge mastaba, G 4000 at Giza, belonging to Prince Hemiuwn, was excavated by Prof. Junker and produced, in addition to the splendid seated statue of the owner, some fragmentary reliefs, published in his *Giza* i, p. 146. The chapel had a peculiar form—a corridor running nearly the whole length of the mastaba and built inside an enlargement of the core. The entrance was at the south end of the east face of the mastaba and was surrounded by a small brick chapel. In the west wall of the corridor, at the north and south end, were two false-doors, each with a serdab behind it. On the north jamb of the entrance was preserved part of an offering list and a corner of the table from a scene showing Hemiuwn seated at his funerary meal (fig. 10). Just around the corner, on the façade, was the lower part of a standing figure of the prince and three vertical lines of inscription giving titles and name (fig. 10). An architrave was also nearly complete, but whether this came from the entrance or from one of the false-doors is not certain (fig. 10). The reliefs are of the finest quality of low relief, resembling the Giza slab-stelae and a few fragments of royal relief of Dynasty IV. Not more than three or four chapels at Giza show workmanship of this superlative quality. The space around the northern false-door is undecorated, and Prof. Junker was of the opinion that only the south-



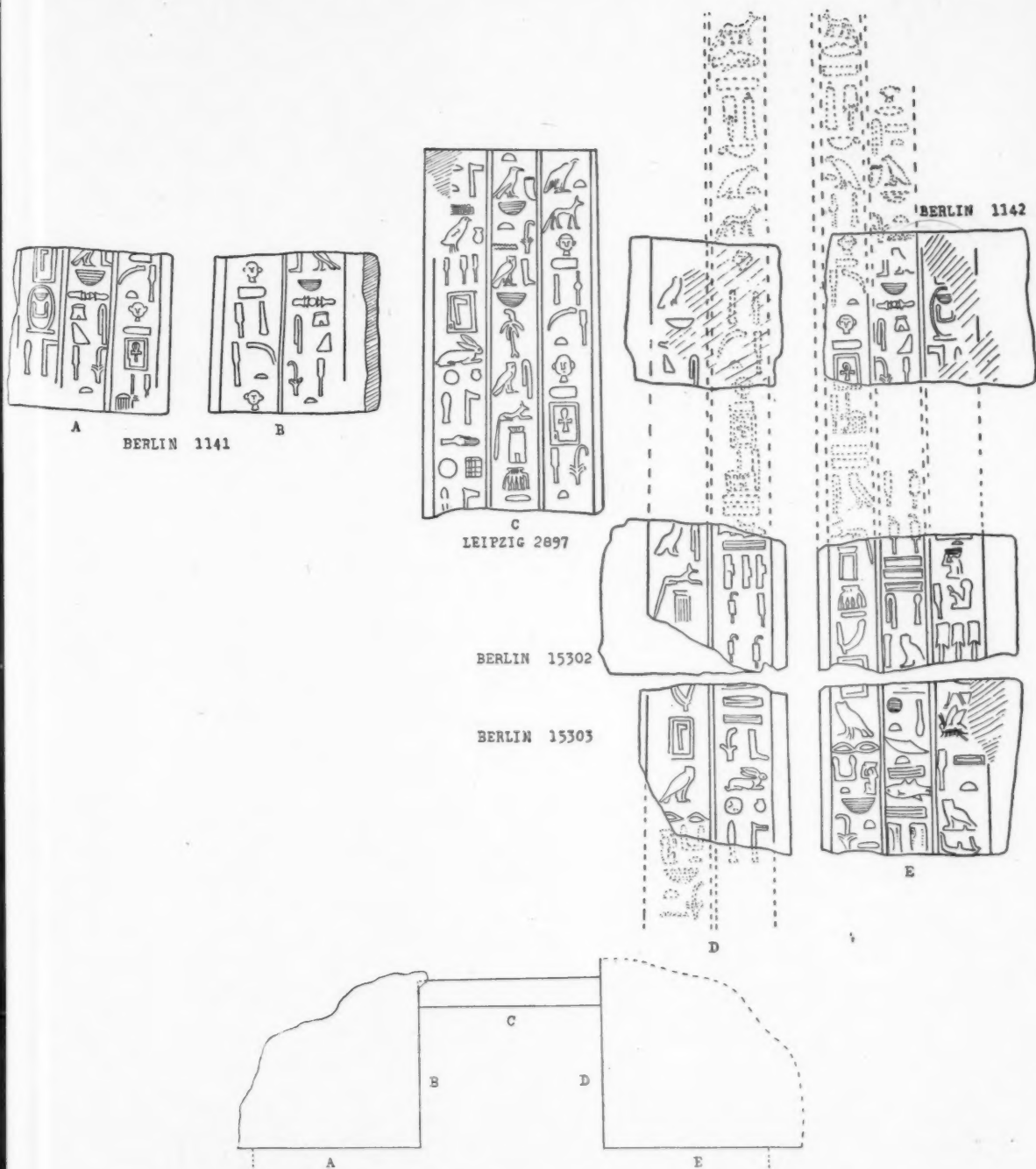
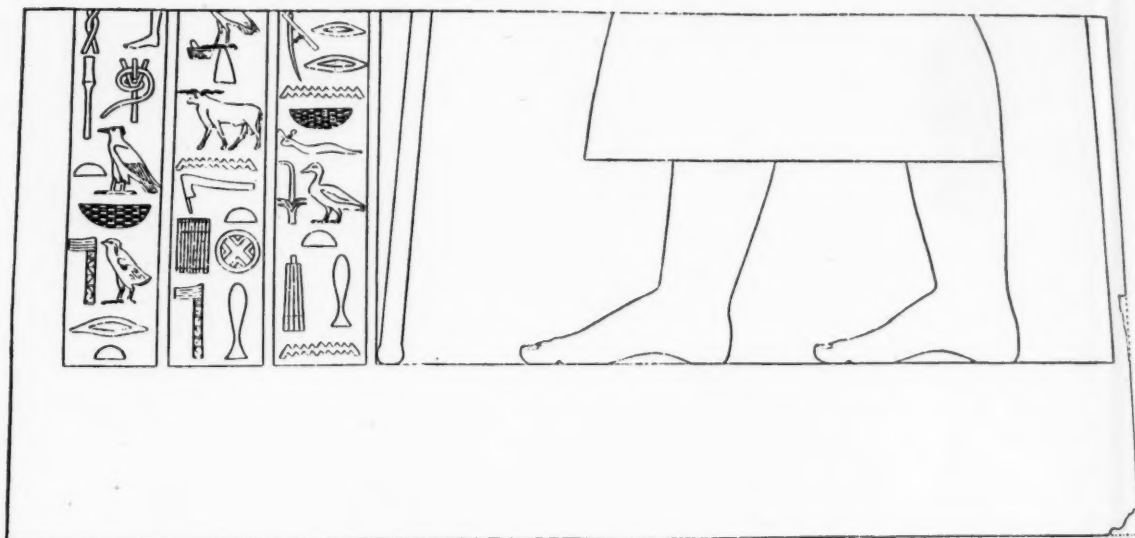


FIG. 9.—SUGGESTED RESTORATION OF FALSE-DOOR OF AKHET-A'A (In the title, *hry wdb wd mdw*, the *wd* has been copied wrongly as *hry* on block 1141, and the *wdb* inadvertently omitted on 1142)



a.



b.

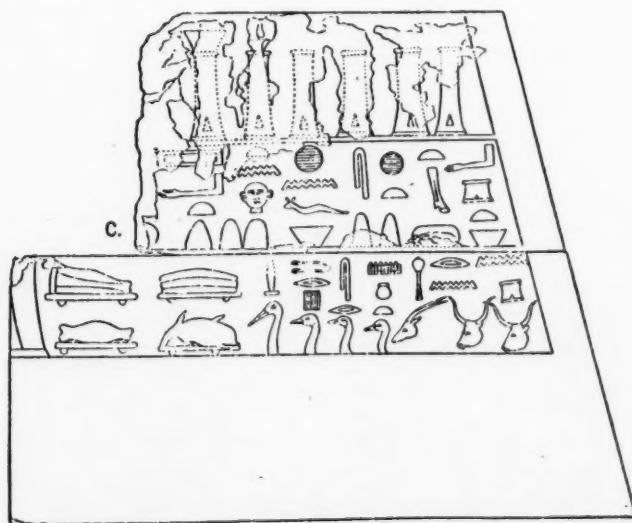


FIG. 10. —RELIEFS OF HEMIUNN IN HILDESHEIM (JUNKER, *Giza I*, p. 146)

ern end of the corridor was carved with reliefs. It looks as though the chapel had not been entirely finished. As in the case of other early mastabas in the Western Cemetery, the enlargement of the core with massive blocks was intended for the purpose of constructing the interior chapel. The mastabas with stepped cores of small masonry were intended originally to have only exterior brick chapels. Dr. Reisner has concluded from evidence given in his forthcoming volume, *The History of the Giza Necropolis* i, that the introduction of the interior chapel at Giza, combined with core-work of large masonry, occurred first in the great twin mastabas of the royal family in the Eastern Cemetery, between the years 17-20 of Cheops. The alterations to certain of the older mastabas in the Western Cemetery probably took place at about the same time, or soon afterwards. Of these, aside from the tomb of Hemiwn, only the mastabas G 2130 and 4260 (Junker's II N) received their decoration, and this has been almost entirely destroyed. The owners of the other tombs probably died before the work on their chapels was completed, or the work may have been discontinued at the death of Cheops. The advent to the throne of Radedef, who, as the son of a secondary queen, seems to have been a usurper, brought an abrupt end to building activities at Giza, for a time, at least. Radedef began a new cemetery at Abu-Roash and seems to have remained hostile to the other relatives of Cheops whose tombs were at Giza. It is probable that the erasure of the reliefs in the chapel of Hordedef occurred at this time.

The dated quarry marks, found on casing stones at Giza, confirm this series of circumstances very well. Except for the latter part of the reign of Sneferuw, when the cattle counting was held every year, the recording of time in the Old Kingdom up to the reign of Pepy I seems to have been based on the biennial cattle census. Since the first counting came in the first year of the reign, the date is to be reached by doubling the census number and subtracting 1. Although Junker is doubtful of this and is inclined to accept the figure given in the quarry mark as the actual date, the system based on the cattle census taken every second year seems to fit well with the other evidence from Giza. Thus the casing of the Hemiwn mastaba would be dated to the years 15 to 19 of Cheops, that is, the years of the 8th to 10th census. The name of the king is not given in these inscriptions and must be arrived at from other considerations.

Other evidence from Giza can be given briefly as follows. Two early mastabas in the Western Cemetery yielded quarry marks. One from G 1205 contains the crew-name of a gang of Cheops' workmen, while G 1203 had a block giving the year 9. The mastabas of two sons of Cheops in the Eastern Field, Ka-wab (G 7110-7120) and Hordedef (G 7210-7220) were cased with blocks bearing crew-names of Cheops, while casing blocks from G 7310-7320 (Ra-bauw-f ?) bore unintelligible marks which may have formed the same crew-names. A stone in the Cheops temple bore a mark read by Alan Rowe as the year 13, which suggests that the temple had at least been begun by that year. Since the northernmost of the Queens' pyramids was placed in the angle between the entrance corridor and the main body of the temple, the temple plan was probably at least laid out before construction on the pyramid began. This pyramid had been moved, however, some meters to the west, from a site which was abandoned, after preliminary cuttings, to avoid interference with

the secret tomb of Queen Hetep-heres to the north of it. The first plan for this pyramid did not leave sufficient room for the core of the mastaba of Ka-wab on the east. Therefore, neither this tomb nor those to the east and south, which formed a block according to a unified plan, could yet have been constructed.

The order of construction in the Eastern Cemetery, therefore, seems to have been: first the plan of the temple, with at least some of the walls in place by the year 13, then the building of the northern Queen's pyramid (G I a) and perhaps the two others (G I b, G I c). After this, twelve mastabas were laid out in four east-west rows of three each. Finally, the northern two mastabas in each row were joined and cased to form four enormous twin mastabas, while additions were made to the southern mastaba in each row to enlarge four more tombs to the size of those on the north. Since the first two of the northern twin mastabas were cased by Cheops, it is probable that all four were completed in his reign, while that of Khufuw-khaf (G 7130-7140), the first in the southern row, bears the year 23 on a block of the casing. The other three mastabas in this row were either hastily completed or left unfinished, which like the abandoned work in the Western Cemetery suggests the advent of Radedef. Hence, it is very probable that the chapel of the middle Queen's pyramid (G I b), from which reliefs are preserved, and those of Ka-wab (G 7110-7120), Hordedef (G 7210-7220), Ra-bauw-f (?) (G 7310-7320), Hor-baf (?) and Queen Meresankh II (G 7410-7420) and Khufuw-khaf (G 7130-7140) were all completed before the death of Cheops which occurred in the twenty-third year of his reign.

Three of the tombs in the Western Cemetery, which were altered evidently in imitation of the mastabas of the favorite members of the royal family, bear evidence of their date which fits very well with the chronology of the Eastern Cemetery. The tomb of Prince Khent-ka (?) (G 2130), which from its fine low reliefs might be expected to belong to the reign of Cheops, had a sealing of that king in the burial chamber, while G 2120 (Prince Seshat-sekhentiyuw) had a quarry mark of the year 23 on one of the stones of the chapel. As has been mentioned, the casing of the tomb of Prince Hemiwn was made between the years 15 and 19.

The fixing of this chronological succession, which is supported by other evidence of the succession of types in the construction of mastaba cores, casings, chapels and burial chambers, is particularly important because of Junker's belief in the limitation of the use of chapel decoration in the reigns of Cheops and Chephren. Emphasis should also be placed on the existence of fragments of very fine relief from the Queen's chapel G I b, as well as recently discovered fragments of the decoration of Cheops' pyramid temple.<sup>17</sup> Other reliefs of a temple of Cheops and Chephren have been found, re-used in Middle Kingdom constructions at Lisht, while a block which probably formed part of the decoration of the Chephren causeway has long been known.<sup>18</sup>

It is true that the decoration of the early mastabas in the Western Cemetery was originally limited to the placing of a slab-stela in the stepped east face of the core, but five of these tombs had their slab-stelae concealed behind the walls of an

<sup>17</sup> *News Items from Egypt, AJA.* 1940, pp. 147-148.

<sup>18</sup> Hölscher, *Das Grabdenkmal des Königs Chephren*, p. 110.

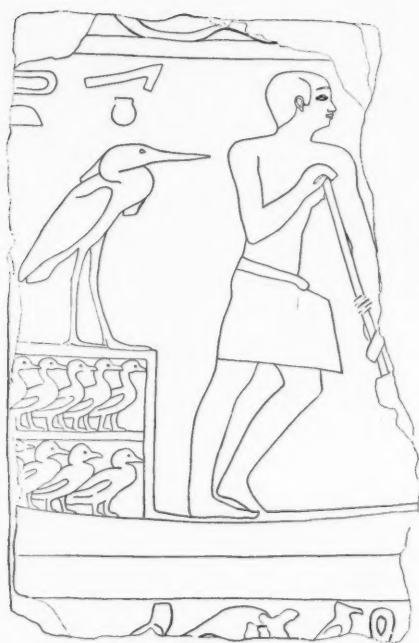
interior chapel, constructed in an addition of heavy masonry.<sup>19</sup> As we have seen, these additions were certainly made in the reign of Cheops, and their unfinished condition is perhaps due to his death. Had the chapels been completed, they would certainly have been decorated as were those of Hemiuwn (G 4000), G 4260, and Khent-ka (?) (G 2130). Not only is the chapel of Hemiuwn not the one exception to the custom of using the slab-stela alone, but some fragments found by the Harvard-Boston Expedition suggest that the decorations of the Hemiuwn chapel were not restricted to the simple scheme of subject matter which Junker had assumed from the pieces which he found.

It may be said at once that scenes from life were not so completely absent from the Giza chapels before the beginning of Dynasty V as Junker infers. While it is quite right to state that, in general, the decorations of the offering room in Dynasty IV are limited to representations concerned with the funerary meal and the bringing of offerings to the owner and his family, there are some notable exceptions. The exterior chapels of Prince Ka-wab and Queen Meresankh II have preserved fragments of scenes from life. In that of Ka-wab, there was a scene of the presentation of cattle by the herdsman, while two blocks show men making mats or tying bundles of flax, and on another an overseer stands in a boat with a heron and a box of ducks (fig. 11). While the first of these is perhaps from a more elaborate kind of presentation of animals than is usual, the last is certainly from a swamp scene of the kind common in the later Old Kingdom. From a similar scene, where birds are being hunted, comes a little piece with part of a papyrus plant and the tip of a bird's wing, found in the chapel of Meresankh II (fig. 11). That lady is also shown, seated in a boat punted by a small attendant (fig. 11). The chapel of Merytyetes (G 7650), probably finished about the years 23-25 of Chephren, has a scene of seining fish on the east wall of the offering room. Probably from a hunting scene is a squatting figure who seems to be holding the leash of a hunting dog (fig. 11). This was found in the chapel of Prince Min-khaf, probably also of the reign of Chephren. Although perhaps already influenced by the craftwork scene in the rock-cut tomb of Prince Khuwnera of the time of Mycerinus, a fragmentary boat-building scene appears on the east wall of the inner offering room of Duwanera (G 5110), also of the reign of Mycerinus. The scenes from life were, of course, widely developed in the rock-cut tombs toward the end of the Dynasty. Since Junker does not believe that the scenes of voyage by boat to the sacred cities appeared before Dynasty V, a fragmentary scene of this sort from the Queen's pyramid G I b should finally be mentioned. We need not be surprised, therefore, if two of the new fragments from the chapel of Hemiuwn suggest a more varied depiction of subject matter than had been assumed for the reign of Cheops.

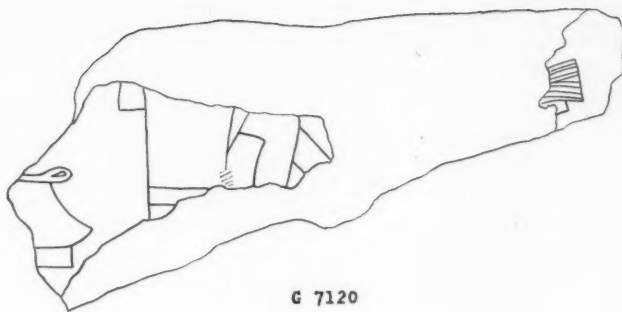
The fragments found in the Harvard-Boston concession, just a little to the south of the Hemiuwn mastaba, had been dragged from the chapel by stone thieves to be burned for lime. Some of them had been broken into such small pieces that the representations are almost unintelligible, but one preserves the name of the Prince (25-12-310) and several have titles borne by him on the reliefs found by

<sup>19</sup> Prince Wepemnofret (G 1201), Prince Ka-m-aha (G 1223), Princess Nefert-yabet (G 1225), Prince Seshat-sekhentiyuw (G 2120) and Prince Iwnw (G 4150).

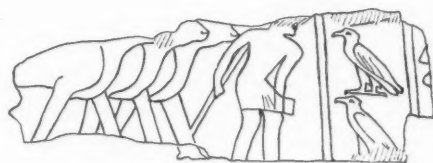




G 7120



G 7120



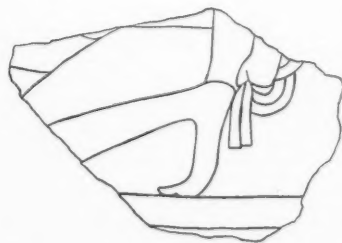
G 7120



G 7420



G 7120



G 7430

FIG. 11.—FRAGMENTS OF SCENES FROM LIFE IN DYNASTY IV CHAPELS OF THE EASTERN CEMETERY AT GIZA: PRINCE KA-WAB (G7120), QUEEN MERESANKH II (G7420), AND PRINCE MIN-KHAF (G7430) (THE SCALE VARIES IN THE DIFFERENT PIECES)

Junker and on the base of his statue in Hildesheim (fig. 16). Two pieces show life-size heads of the Prince, and while one of these is badly broken, the other is a remarkable piece of portraiture (fig. 13). Attention has been called by Prof. Steindorff to the resemblance between this head and that of the Hildesheim statue.<sup>20</sup> The occurrence of the *dī nswt htp* formula, accompanied by a second *htp* sign, in front of the face, suggests that this is part of a list of offerings in front of a figure seated at a table of bread. This may mean that the fragment (25-12-299) comes from a scene of the funerary meal on the south jamb of the entrance, corresponding to the similar representation on the north jamb found by Junker (fig. 10). Very badly preserved, but important, is a block containing the overlapping figures of three animals (fig. 12).

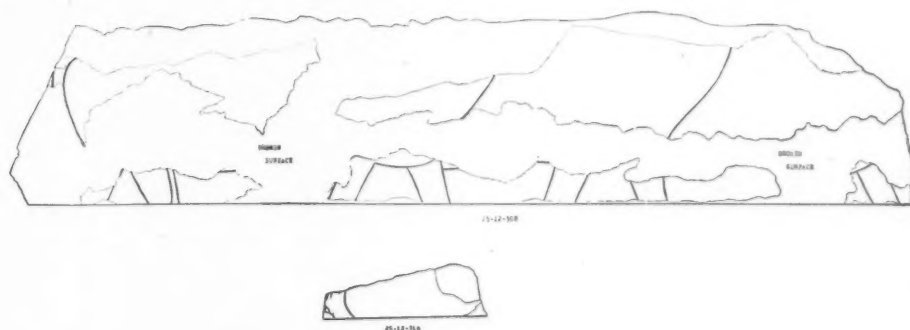


FIG. 12.—OVERLAPPING FIGURES OF ANIMALS ON RELIEF OF PRINCE HEMIUN (BOSTON)  
(LENGTH 58 CMS.)

One immediately thinks of the overlapping figures of sheep trampling in the grain, or of the donkeys in the harvest scene. The sheep are not otherwise known before the agricultural scenes of Meresankh III, at the end of Dynasty IV, and the donkeys not until Dynasty V. It should be pointed out that the cattle presented by a herdsman on the Ka-wab fragment mentioned above are shown with overlapping bodies, and some such representation may occur here. However we may interpret it, this is not part of one of the simple processions of animals that are ordinarily found in the offering scenes of the early interior chapels. Even more unorthodox is the small piece with the hand plainly holding an adze (fig. 14, No. 25-12-301). Whether the line below forms part of a projecting knee or shoulder, I am unable to determine. I confess that I cannot restore this figure plausibly, but think that it must come from one of the contorted figures of craftsmen in a boat-building scene. The other small fragments of subsidiary figures are too little preserved to betray the kind of scene from which they came.

Three inscribed fragments (25-12-309, 310, 311) are from an architrave, which I thought at first formed the missing portion of that found by Junker. The fragments were presented to Prof. Roeder to accompany the other pieces in Hildesheim (fig. 10). There it was found that these formed part of a second very similar archi-

<sup>20</sup> *Zeitschrift für Ägyptische Sprache* 73, p. 120.

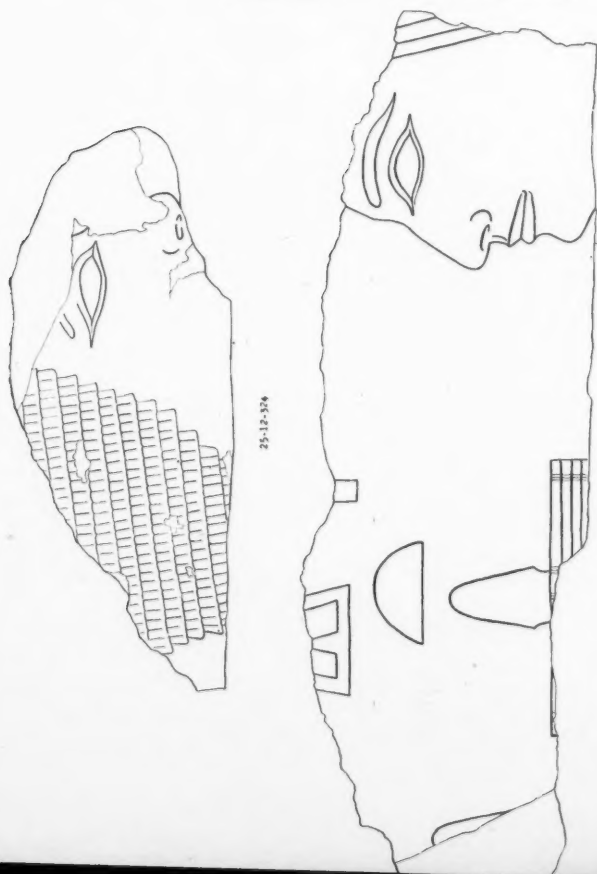


FIG. 13. — FRAGMENTS OF RELIEF OF PRINCE HEMIWN (BOSTON). (LENGTH OF 299 IS 39 CMS.)

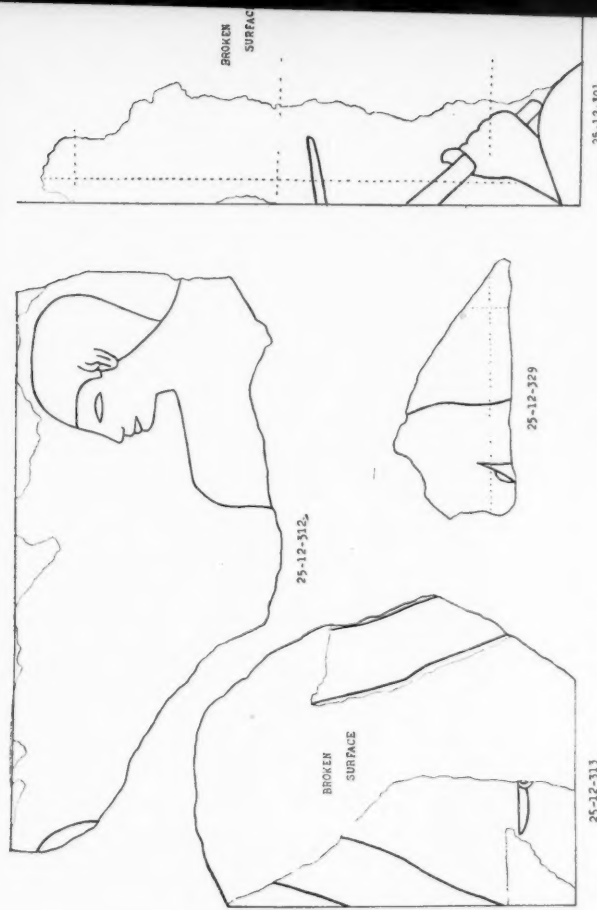


FIG. 14. — FRAGMENTS OF RELIEF OF PRINCE HEMIWN (BOSTON). (LENGTH OF 312 IS 20 CMS.)

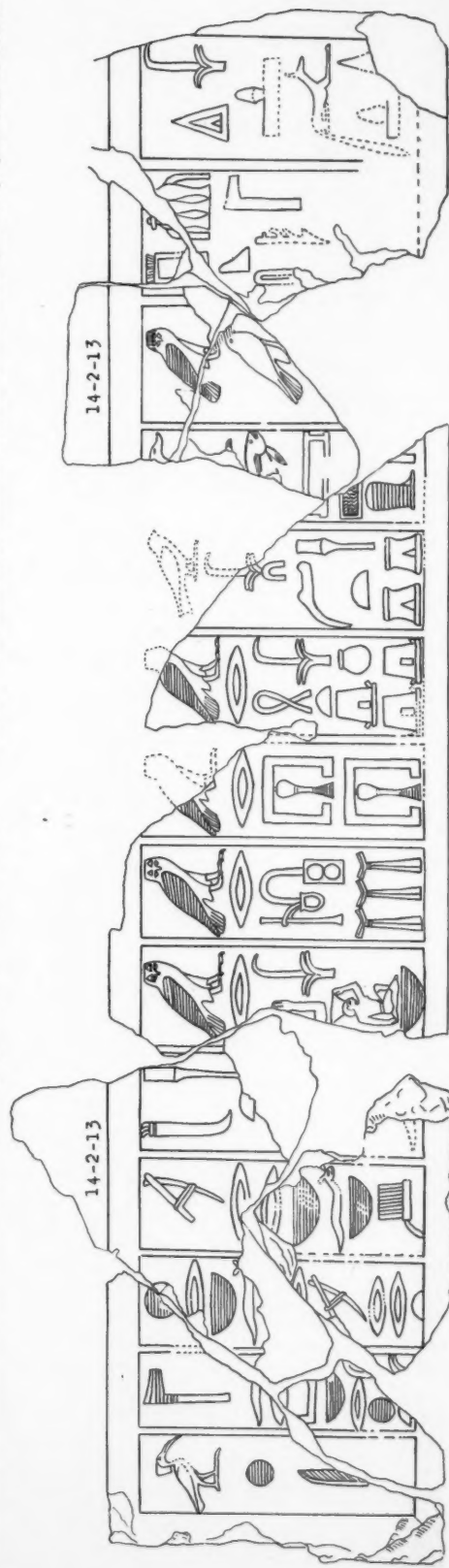


FIG. 15. — ARCHITRAVE OF AKHY WITH TWO PIECES NUMBERED 14-2-13 RESTORED (COMPARE JUNKER, *Giza I*, p. 239)

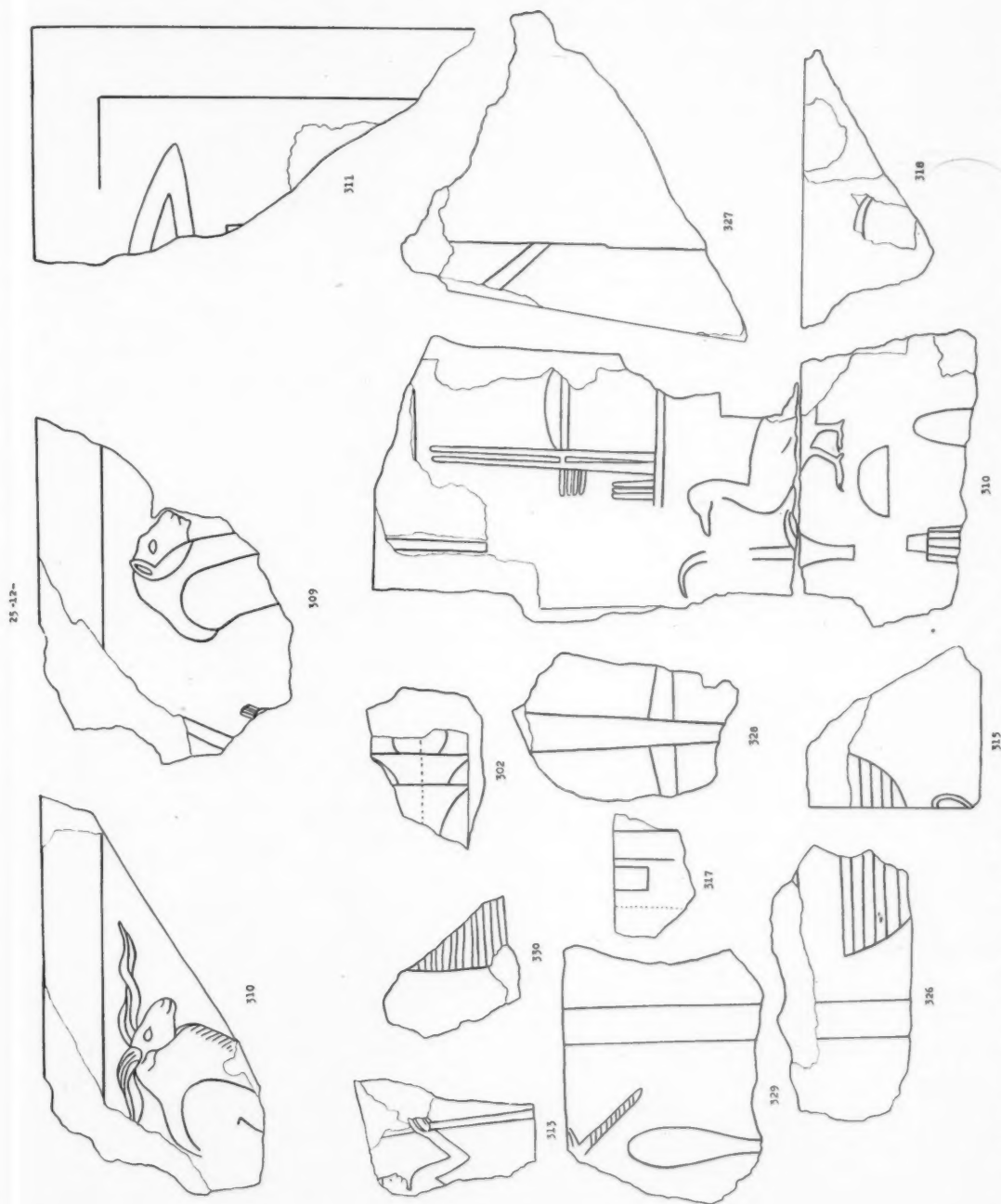


FIG. 16. — FRAGMENTS OF RELIEF OF PRINCE HEMIWN (Nos. 309-311 IN HILDESHEIM, OTHERS IN BOSTON). (HEIGHT OF 311 IS 7.2 CMS.)

trave, with a slightly wider border (fig. 16). It is impossible to be certain which architrave stood over the entrance and which formed part of one of the false-doors.

The other fragments of inscription are badly broken (fig. 16), but curiously enough they supply two titles which Junker lacked when he was attempting to identify Hemiuwn with the like-named son of Neferma'at of Medum. One of these, *hrp mrwy itrt* (Director of the two lakes of the Southern Sanctuary ?), is followed by "King's son Hemiuwn" (No. 25-12-310). It is borne by Neferma'at's son Hemiuwn in his father's tomb at Medum. The other title, *wb' Mnw'* (Priest of Min, Nos. 25-12-302, 328), is held only by Neferma'at, but, like others, may easily have been inherited by his son, as Junker assumes. While it is true that we must take Hemiuwn's title of "King's son" as having been given to him by courtesy, if we accept Junker's identification of him with Neferma'at's son, nevertheless, there are enough occurrences of this courtesy title to justify such an assumption. I have always thought Junker's arguments reasonable, and the accident that among these fragments should be preserved just the two titles necessary to complete the parallel occurrence of the titulary at Giza and Medum seems to me more than a mere coincidence.

One other fact seems to bring the two men close together. This is the use of colored pastes to fill in the incised hieroglyphs on the base of Hemiuwn's statue. This is a very rare procedure, and it would be natural had it been inspired by the use of paste inlays in the wall decorations of the tomb of Hemiuwn's father at Medum. That it was so inspired is probable, but, of course, this does not prove the family relationship. Certainly a new group of craftsmen were working at Giza in a style that resembled very little the chapel decorations at Medum. While this is true of the reliefs, there is a much closer relationship between the style of Hemiuwn's statue and those of Ra-hotep and Nofret at Medum.

Although Hemiuwn's chapel was unfinished, the perfection of his reliefs must have been admired at some later time, for several of the fragments bear red squared lines to serve in copying the figures (Nos. 25-12-302, 317 on fig. 16; 301, 329 on fig. 14). In one case, the wall had been damaged before the copying took place, for the lines continue on the broken surface (No. 25-12-301). In every case the color had disappeared from the wall before the red lines were applied. I have indicated the red marks by fine dotted lines on the fragments in question.

#### 4. THE ARCHITRAVE OF AKHY

The tomb of Akhy (G 4750) had an exterior stone chapel like those of Nofer (G 2110) and Sneferuw-seneb (G 4240), which were probably both decorated in the reign of Chephren. The fragmentary reliefs of Akhy, recovered by Prof. Junker, are probably not much later than these, if not of the same time. Two fragments were found by the Harvard-Boston Expedition in pit 4734A in the street south of Akhy's mastaba. As is clear from the drawing in fig. 15, they form part of the missing portions of the architrave in Vienna, discovered by Junker. Unfortunately they were not identified in time to be incorporated in Junker's publication of the reliefs (*Giza i*, pp. 236-241). One piece (14-2-13) adds a portion of the offering formula and the title '*d mr* in the following column, while the second piece (also 14-2-13) gives



a new title for Akhy: *hry tm*’, and adds two phrases which Junker had already restored in the third and fourth columns from the end. While these new fragments are small, they serve to complete at least one portion of a series of important, but very fragmentary reliefs.

It may be added that a block in Turin, of which I have only a sketch and cannot therefore illustrate, is probably also from the chapel of Akhy. It bears his name, as well as one of his titles: “Overseer of the King’s Granaries.” Beneath the lower part of three vertical columns of titles facing to the right and ending in Akhy’s name, is an unintelligible name of a scribe, written horizontally. A border line runs down the left side of the block. I am unable to suggest from what wall the block can have come, but it is very likely that it was excavated by Schiaparelli at Giza, since a number of other reliefs were found by him in the neighborhood of the Akhy tomb. He removed from the chapel of G 4630 the two stelae of Meduw-nefer and Ankh-ir-s which are now in the Cairo Museum. He probably also found the stelae of Wehem-nofret and Thentet, now in Turin, in subsidiary constructions added to the tomb of Weneshet (G 4840). Wehem-nofret is to be identified fairly certainly with the woman of the same name on Weneshet’s stela (Junker, *Giza* i, p. 252). Weneshet and Wehem-nofret each possessed an estate with the same name, while Wehem-nofret calls herself “honored before her mother,” which may well be a reference to Weneshet. G 4840 adjoins the mastaba of Akhy on the southeast. The Turin stela of Khent-kauw-s was also found by Schiaparelli a little farther to the east, in the tomb G 5140. He therefore worked in the neighborhood of Akhy’s chapel and may well have found the Turin block in the débris nearby.

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### THREE INSCRIPTIONS IN THE UNIVERSITY MUSEUM, PHILADELPHIA

1. The bronze strigil,<sup>1</sup> figs. 1 and 2, was acquired for the University Museum in Italy in 1897. It was reported to have been found in Etruria where, according to Dennis,<sup>2</sup> this type of strigil was invariably used. The end of the handle is lanceolate and of the same curvature as the blade to which it was soldered. The blade itself is bent at approximately a right angle. The same shape is found in Greece.<sup>3</sup> It is more graceful than that adopted by the Romans in which the opening in the handle is a rigid rectangle.

The inscription, to be discussed by Dr. Hoenigswald, is on the part of the handle nearest to the blade. The oblong incuse made by the stamp is 0.021 m. long and 0.004 m. wide. On either side of the inscription is an eight-petalled rosette or star. Such stamped inscriptions of Greek, Etruscan or Roman names are best regarded as names of makers of strigils rather than those of owners, since it would have been a costly matter to make a new stamp for each man who bought a strigil. The fact that the same name occurs more than once on the comparatively few inscribed strigils which are preserved confirms this view. Ornamental emblems on either side of the stamp are also repeated. Palmettes are fairly frequent; one other instance of the star occurs on a strigil in Berlin.<sup>4</sup> Since such stamped emblems are combined with different names, they are probably purely ornamental.

As to date: strigils, so far as I have noted, are not found in seventh-century tombs in Italy. At Bologna a strigil was found with a b.-f. amphora,<sup>5</sup> which indicates the probability that their use goes back to the sixth century. At Cyprus a fragmentary iron strigil, unfortunately not reproduced, was found by the Swedish Expedition in Stratum 5, Idalion, referred to the Archaic I and early Archaic II Periods, covering the seventh and early sixth centuries, and a second strigil of bronze was found in stratum 6 on the same site, referred to the Archaic II Period, which seems to cover most of the sixth century and to end ca. 470 B.C.<sup>6</sup> At Perachora<sup>7</sup> strigils were found in the temenos of the temple of Hera Limenia, but the objects in this deposit ranged from the late eighth century to post-classical times.

Some light on the date when the Roman type of strigil supplanted our type is afforded by an iron strigil found in Tomb 9 at Marion, Cyprus.<sup>8</sup> It was lying in an isolated deposit, together with a lamp which corresponds approximately to Broneer's Type XII,<sup>9</sup> the earliest example of which is assigned tentatively to the last years of the fourth and the first of the third centuries B.C. The end of the third, however, and the beginning of the second century are suggested by Broneer as the likeliest

<sup>1</sup> M.S. 1642, l. 0.233m., w. of blade, 0.04 m.

<sup>2</sup> *Cities and Cemeteries* 1<sup>st</sup>, p. 408.

<sup>3</sup> Richter, *Greek, Etruscan and Roman Bronzes*, no. 855; D. M. Robinson, *Olynthus* x, pp. 172-180, where many Greek examples are cited.

<sup>4</sup> C. Friederichs, *Kleinere Kunst und Industrie im Alterthum*, p. 90, no. 214.

<sup>5</sup> NS. 1876, p. 82.

<sup>6</sup> SCE, ii, p. 604, 739a; *id.*, pl. CLXXXVI, no. 149.

<sup>7</sup> *Perachora*, i, p. 180 and pl. 80, 15 and 16.

<sup>8</sup> SCE ii, pl. XXXVIII, no. 35a.

<sup>9</sup> *Corinth* iv, 2, p. 32, fig. 14, profile 45 and pl. IV, 188.



FIG. 1.—BRONZE STRIGIL IN THE UNIVERSITY MUSEUM, PHILADELPHIA

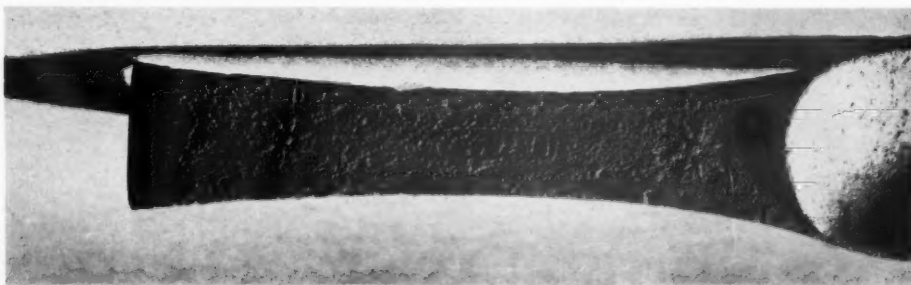


FIG. 2.—STAMPED INSCRIPTION

dates for the period in general. The *terminus ante quem* for our strigil is thus probably ca. 175 B.C.

Eight-petalled rosettes like those on our strigil occur on stamped black glaze ware from Minturnae,<sup>10</sup> which can be dated to a period intermediate between the founding of the Roman colony in 295 B.C. and the date of a coin of Neapolis which was found with the pottery and which was of a type not struck after 250 B.C. A similar rosette is stamped on the handle of an amphora of unknown provenance,<sup>11</sup> dated by its context to the fourth to third centuries B.C. If, moreover, the "sternförmige Verzierung" on the Berlin strigil is the same as our rosettes, another clue as to date is provided by its inscription. As Dr. Hoenigswald points out, this is Etruscan and contains the *nomen gentile*, *ancaru*, which in Eva Fiesel's opinion<sup>12</sup> spread southward from Chiusi in the third and second centuries B.C. None of this evidence is really conclusive, but indicates the possibility, at least, of a third-century date.

E. H. D.

The inscription, fig. 2, (height of the letters approximately 2 mm.) consists of a stamped mark between two rosettes. It is nearly illegible, owing to the badly obliterated condition of the surface. Assuming, however, that we are actually confronted with Etruscan writing, we may venture to read (from right to left):

lulufhut (??)

This tentative reading is based on an actual examination during which I made several rubbings and the following drawing:<sup>13</sup>

CTVJN

The upright semicircle at the end would appear to be the left edge of the stamp, rather than to belong to a letter (*r*, *o*?). It might be, nevertheless, that the inscription is not only related to, but in reality the same as the one read on another strigil (Clusium?) by G. F. Gamurrini as *lululutoi*, "marca già conosciuta per altri [?; ours?] esemplari";<sup>14</sup> note the *o*, a symbol foreign to the Etruscan alphabet proper. Both inscriptions are unintelligible; one would expect the stamp to display the manufacturer's name. Of the few similar Etruscan strigil inscriptions the decipherable ones bear such names—*p. vipie cultes* (?),<sup>15</sup> *serturies* (Perusia)<sup>16</sup>—or short sigles apparently standing for names.<sup>17</sup>

H. M. H.

2. The inscribed plate, fig. 3,<sup>18</sup> was once in the collection of Hermann V. Hil-

<sup>10</sup> *Bollettino dell' Associazione Internazionale Studi Mediterranei* 1934-1935, pp. 113, 114.

<sup>11</sup> *Hesp.* iii, 3, pp. 290, 273.

<sup>12</sup> *Language* xi, 1935, pp. 124-126.

<sup>13</sup> I am indebted to Mrs. Dohan, J. F. Daniel, and the late Vladimir Fewkes, all of the University Museum, for facilitating the reading. The object was also cleaned by electrolysis (fig. 2 shows the new state), but apparently with no new results.

<sup>14</sup> *Appendice al CII* [hereafter referred to as *Ga.*], no. 653.

<sup>15</sup> H. B. Walters, *Catalogue of the Bronzes*, no. 2454.

<sup>16</sup> *Ga.* 684; cf. *sert.*, *Ga.* 112 (Arretium). See also footnote 4.

<sup>17</sup> *Ga.* 648 (Clusium); *Ga.* 812 (Tarquinii); etc. See also *NS.* 1876, p. 82; and others. The stippled inscription on a silver strigil in the Metropolitan Museum, New York (A. Furtwängler in *Sitz.-Ber. München*, Phil.-Hist. Kl., 1905, p. 271; G. M. A. Richter, *Handbook of the Etruscan Collection*, p. 53), is of a different type. Cf. also S. Dorigny in *DS.* 4, p. 1533.

<sup>18</sup> 38-11-1. d. 0.13 m.; h. 0.016 m.



FIG. 3.—PLATE WITH ETRUSCAN INSCRIPTION, UNIVERSITY MUSEUM, PHILADELPHIA



FIG. 4.—FALISCAN VASE WITH GRAFFITO



precht, who was in the habit of buying antiquities in various places through which he passed on his journeys to and from Nippur. Many of his purchases were made in Rome and of these the majority are now in the University Museum on a permanent loan from the Philadelphia Museum of Art to which they were bequeathed. A few, however, remained in the possession of Hilprecht's family and were later sold at public auction in Philadelphia; at this sale the inscribed plate was purchased for the University Museum. It is made on the wheel, of a clean reddish buff clay. The rim is slightly convex with no overhang; the foot is only three mm. high.

Plates of this shape, but of larger size, have been frequently found in Italy in tombs of the seventh century;<sup>19</sup> they have also been found with r.-f. Faliscan vases.<sup>20</sup> In the University Museum is a plate<sup>21</sup> of similar clay and dimensions, one of a group of vases excavated in two Tarquinian chamber-tombs in the region of Montebello ai Poggiali. Half of the contents of these two tombs were presented in one lot to the Museum by the Marchese Levaggi. According to the records, both tombs contained fusiform unguentaria and cinerary urns of a late type such as were found in Ponte a Moriano, Lucca.<sup>22</sup> The Lucca urns were thought to be not necessarily earlier than the founding of the Latin colony in Lucca in 180 B.C. The Montebello plate has a still lower base than the inscribed plate; the lip is more convex and its outer edge is rolled over. It is also less carefully made. In spite of these slight variations, there is a strong resemblance between the two, so that it is tempting to regard the inscribed plate as the product of a slightly earlier period in the late third century. But this would be a rash conclusion, for there is nothing to prove that it is not of still earlier date.

E. H. D.

The inscription (cf. fig. 3), which covers about half of the rim, is impressed in Etruscan letters (average height 13 mm.), running from right to left. It reads:

*vl : vitecaθa : vivipinal*

(The two slanting strokes after the last character are accidental). It belongs to a group of Clusine inscriptions represented by *CIE.* 638 (sepulchral tile, now believed lost, read by Brogi): *vl : tite : caθa | vi: vipinal*; and *CIE.* 4880 (olla in Città della Pieve): *vl : vite caθa : vpinal*. The form of the letters, which seems fairly late, as well as the peculiar distribution of the punctuation signs is virtually the same on our plate as on *CIE.* 4880. Probably all three inscriptions stand for

*v(e)l tite caθa v(e)l vipinal*

"Vel Titius Catha, (son of) Vel (and a woman of the family) of Vibenna," with the only difference that the patronymic is omitted by *CIE.* 4880. They appear to have been executed together for one and the same person by a rather inexperienced scribe; as *caθa* is known to be a traditional cognomen of the *tite* family, the (otherwise unknown) *vite* on our plate and on *CIE.* 4880 is no doubt faulty writing, and the same is true of *vi* (our plate and *CIE.* 638) for *vl*, the customary abbreviation of

<sup>19</sup> Dohan, *Italic Tomb-groups in the University Museum, Philadelphia*, pp. 53-56, 61, 73, 75, and 76.

<sup>20</sup> *NS.* 1935, p. 115, fig. 11, 3.

<sup>21</sup> *M.S.* 2887. d. 0.135 m., h. 0.026 m.

<sup>22</sup> *NS.* 1928, p. 31, fig. 3.

the praenomen *vel*.<sup>23</sup> Both the *tite* and *vipina* families are well known from many parts of the Etruscan area. H. M. H.

3. The small dish, fig. 4,<sup>24</sup> was purchased by Frothingham for the University Museum in 1897 and was stated to have been found in the Ager Faliscus. It is made on the wheel, of clean buff clay covered with a slightly lustrous and slightly iridescent brownish black glaze which has in many spots flaked off from the underlying clay.

The shape is late: an example in Florence<sup>25</sup> from Poggio Belvedere is classified by Doro Levi as Etrusco-Roman; another example in the Sèvres Museum<sup>26</sup> comes from a Roman cemetery near Bordeaux; and a third of approximately the same shape<sup>27</sup> was found in the dump of rejected pottery at Minturnae which, as we have seen, can be dated between the years 295 and 250 B.C. E. H. D.

The graffito (h. about 7 mm.) reads: (cf. fig. 4)

*auui* or *aue*

Similar short inscriptions, written like ours from left to right, in what seems to be a completely Latin alphabet, are well known on late Faliscan pottery. The closest parallel is perhaps that found on an Etrusco-Campanian patera from near San Martino (Capena): *c. aue* or *c. auui* (CIE. 8496).<sup>28</sup>

If our inscription gives a full name form, it may well be connected with Etruscan *avei*, Latin *Auius*. But it may also be a sigle of some kind.<sup>29</sup> H. M. H.

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<sup>23</sup> Cf. *el* : *tite* : *caða* : *alχusnal* : CIE. 2897 (Clusium), and W. Schulze in *Abh. Gesell., Göttingen.* Phil.-Hist. Kl. N.F. v, no. 5, pp. 332, 418. *vi* in CIE. 638 and *vite* in CIE. 4880 were already given as *el* and *tite* by A. Fabretti (*ad CII.* Suppl. III, no. 150 [= CIE. 638]) and C. Pauli (*ad CIE.* 4880) respectively. It is clear, however, that in both cases the mistake is the maker's, not the previous editors'. C. Pauli (*loc. cit.*) has also seen that *vpinal* (CIE. 4880) stands for *vipinal*; it is not connected with Etruscan *upus* and other names; cf. W. Schulze, *loc. cit.*, p. 276, n. 2.

The repetition of mistakes is not a compelling reason to suspect the authenticity of our plate; rather, the fact that each of the two mistakes recurs on two different inscriptions respectively makes the assumption of a forgery unlikely.

<sup>24</sup> CVA. Firenze iv Bz, pl. 1, 14.

<sup>25</sup> M.S. 2799; h. 0.043 m.; d. 0.098 m.

<sup>26</sup> CVA. Sèvres, pl. 56, 12.

<sup>27</sup> *Boll. dell'assoc. Inter. Studi Med.*, Type 46, p. 102, and pls. V and VII.

<sup>28</sup> Less likely *c-aue* or *c-auui*. For other similar inscriptions see e.g. CIE. 8495 (from the same tomb as 8496), 8498 (from a neighboring tomb), 8383i (CIE. 2, sec. 2, fasc. 1, p. 114; from Corchiano). CIE. 8592 (= M. Buffa, *Nuova Raccolta*, no. 992; from Corchiano) should perhaps be read *c aui* : *turi* (?).

<sup>29</sup> G. Herbig *ad CIE.* 8496. Sigles comprising three characters which cannot always be interpreted as numbers are very common.

## WHERE DID NESTOR LIVE?

THE results of a short trial excavation in the spring of 1939 at a site called Ano Englianos near Koryphasion in Messenia<sup>1</sup> have necessitated the reopening of a long-standing problem which has generally been considered settled for the past quarter century: where was Pylos, Nestor's home? Dr. Blegen and Dr. Kourouniotes, the excavators, intend to defer final consideration of the question until the new site and the whole surrounding district can be further explored, but present uncertainties make it advisable to state the available grounds for the contention that this southern (Messenian) rather than the now usually accepted northern (Triphylian) Pylos was the capital of Nestor's kingdom in the Mycenaean age.<sup>2</sup>

It is perhaps not out of place, before going into the individual points of argument, to review briefly the general history of this controversy. In the extant literature dating before the Christian era no author mentions any confusion in this regard, and it is taken for granted that Homer's references were to the Pylos in Messenia.<sup>3</sup> Strabo, the geographer, is the first known dissenter.<sup>4</sup> He points out that there were in his day in western Peloponnesos three places named Pylos—in Elis, Triphyly and Messenia. This gave rise to the saying, "There is a Pylos in front of Pylos, and still another Pylos." Strabo rightly rules out the Eleian site<sup>5</sup> and admits that "the greater number of other writers, both of historians and poets, say that Nestor was a Messenian," but he insists that the *homerikoteroi*, "those who adhere to Homer and follow his poems as their guide," are correct in their contention that the Pylos of Nestor was in Triphyly near the Alpheios river. Pausanias is either unaware of, or quite undisturbed by Strabo's theory; he does not even mention it in his discussion of Messenian Pylos, which he assumes was Nestor's home.<sup>6</sup>

Up to the end of the last century most topographers continued to favor the southern site,<sup>7</sup> but a few ranged themselves on Strabo's side.<sup>8</sup> Dörpfeld inclined to the latter view, and the chance discovery of Mycenaean bee-hive tombs that were being destroyed by local peasants near modern Kakovatos in the district where Strabo had located Triphylian Pylos gave him an opportunity of testing his theory by the spade.

<sup>1</sup> Cf. the preliminary report in *AJA*, xliii, 1939, pp. 557-576. The following pages are an expansion of a paper read before the Archaeological Institute during its December, 1940, meetings in Baltimore. I am glad to acknowledge the advice and criticism of Dr. C. W. Blegen and Dr. H. A. Thompson.

<sup>2</sup> Dr. A. S. Cooley, in a paper read in December, 1941, at Hartford before the Archaeological Institute of America and in an article which he is now preparing for publication, still maintains the claims of the northern site. This makes it clear that the new evidence from Ano Englianos has not automatically convinced everyone.

<sup>3</sup> Hellanicus, *frag.* 64, *FHG*, i, p. 53; Isocrates, *For Archidamus*, 19; *Panathenaicus*, 72; Diodorus Siculus iv, 68, 6; and the ancient commentators on Homer. Euripides' vague connection of Nestor with the Alpheios river (*Iphigenia in Aulis* ll. 273-276) can scarcely be considered an exception.

<sup>4</sup> Cf. viii, 2, 1; 3, 7; 3, 14; 3, 24-29.

<sup>5</sup> The most obvious objection is that it was situated much too far inland (ca. 25 km.) to agree with notices in the Homeric poems.

<sup>6</sup> iv, 36, 1-5.

<sup>7</sup> Cf. Bursian, *Geographie von Griechenland* ii, p. 177; Leake, *Travels in Morea* i, pp. 416-425; Curtius, *Peloponnesos* ii, pp. 174-176; Frazer, *Pausanias' Description of Greece* iii, p. 457.

<sup>8</sup> Cf. Bérard, *Les Phéniciens et l'Odyssée* i, pp. 83-105.

In 1907 he conducted excavations there, and, coupling his discoveries with a persuasive review of the relevant passages in the Homeric poems, he confidently identified the settlement at Kakovatos as the capital of Nestor's realm.<sup>9</sup> This definitely swung the balance of scholarly opinion to the northern site, and the question is regarded as settled in most works of reference published since that time.<sup>10</sup> But the discovery in 1912 and 1926 of two bee-hive tombs near Koryphasion showed that Mycenaean remains in that region were not as scanty as had formerly been believed and that an important settlement of that period must have been located thereabouts.<sup>11</sup> Relying on these indications and their own interpretation of the references in the Homeric poems, a few scholars remained sceptical of the claims advanced for the northern site, and the results of the recent testing of the Koryphasion area show that their doubts were justified.

Most modern adherents of the Triphylian Pylos have their logical parallel in Strabo's *homerikoteroi*, for there is a tendency among literal-minded and meticulous scholars of every age to regard such literature as the Homeric poems as a direct source of historical and topographical information. But it must be remembered that the *Iliad* and *Odyssey* consist of a series of poetic and idealized stories about the deeds of gods and heroes, and that they cannot be treated as a text-book written for the edification of later historians, archaeologists, and topographers.<sup>12</sup> Hence, it may be more profitable, before taking up debatable details in these poems, to consider first the evidence which is largely independent of Homer.

The name "Pylos" has been applied to the Koryphasion district continuously from at least as early as the fifth century B.C. until the present day,<sup>13</sup> while there was never, as far as is known, any strong and lasting tradition of this kind in connection with the Triphylian site. Also, the great "cave of Nestor" in the northeastern face of the acropolis of Koryphasion is traditionally associated with the herds of the Neleids and with Hermes' theft of Apollo's cattle.<sup>14</sup> Ancient place-names have often been retained with remarkable persistence, and such an argument has proved useful and valid in the identification of many sites.

Furthermore, Nestor is said to have led against Troy a fleet of ninety ships—a greater number than any other Achaean prince, with the exception of the massed ships of the whole realm of Agamemnon.<sup>15</sup> This fact, coupled with their apparent partiality to Poseidon,<sup>16</sup> leads to the conclusion that the Pylians were perhaps the greatest of a nation of great mariners. Hence, unless some stronger power had anticipated them, it is almost inconceivable that they would have failed to establish their naval base in the magnificent bay of Navarino. It forms the only adequate natural harbor along the entire west coast of the Peloponnesos, and it will be shown to have

<sup>9</sup> *AM.* xxxii, 1907, pp. 6 ff.; *ibid.* xxxiii, 1908, pp. 295 ff.; *ibid.* xxxviii, 1913, pp. 101–139.

<sup>10</sup> Cf. articles by various authors in Pauly-Wissowa, *RE.*, to be referred to below.

<sup>11</sup> Kourouniotes, 'Eφ. 1912, p. 268; *ibid.* 1914, pp. 99 ff.; *Praktika*, 1925–26, pp. 140, 141.

<sup>12</sup> Cf. the discussion of this problem by R. K. Hack, *CJ.* xxxv, 1940, pp. 471–481.

<sup>13</sup> Cf. the references cited in footnote 3; also Thucydides, iv, *passim*, and Pausanias, *loc. cit.* The modern town of Pylos occupies the south shore of the bay of Navarino, and modern Koryphasion is situated only a few kilometers inland from the northeastern end of the bay.

<sup>14</sup> Cf. the Homeric *Hymn to Hermes*. Excavation carried on there brought to light some Mycenaean pottery (*AM.* xiv, 1889, pp. 132 ff.; *BCH.* xx, 1896, pp. 388 ff.).

<sup>15</sup> *Iliad* ii, ll. 591–602.

<sup>16</sup> Cf. *Odyssey* iii, 5, 6.



been included in Pylian territory. There is little weight in the objection that, since they apparently did not anchor their ships, but merely pulled them up on a convenient beach, the Mycenaeans would not have needed sheltered harbors. The situation of their important settlements shows that they almost invariably built on a site within reach of a good harbor,<sup>17</sup> and, no matter how they drew up their ships when not in use, they must have welcomed such natural protection for their navy against the menace of winter storms. If, then, the Pylian naval base was in the bay of Navarino, their capital city would naturally be situated nearby.

The excavation of the Kakovatos site was never finished and is far from completely published,<sup>18</sup> while the settlement at Ano Englianos has merely been tested. Nevertheless, a provisional comparison of the actual discoveries of the spade at the two sites is already possible. At Triphylian Pylos three bee-hive tombs were cleared; at Messenian Pylos an equal number have been excavated, and at least two more have been located. On the acropolis of the northern site Dörpfeld uncovered remains of a modest, roughly constructed building with a small court, store-rooms, and a large room with two rudely cut stone column bases preserved. Trenches at the southern site, however, have revealed remains of an extensive building, probably ca. 65 m. square, of complex plan, with outside walls of carefully cut blocks in their lower courses, well-paved floors, frescoed walls, a colonnade along the north side with fine porphyry column bases, and clay documents apparently showing the record of royal possessions. At Kakovatos there are indications of fortifications. No such traces have as yet been noted at Ano Englianos. Finally, Dörpfeld was able to find very few indications of contemporaneous settlement on the slopes of the small Triphylian acropolis, while there was clearly a considerable area of habitation on the lower slopes of the Messenian site.

Since it is admitted that Pylian territory extended as far south as certain cities bordering the Messenian Gulf, it seems an inevitable conclusion that the largest and most pretentious building of suitable date, located in a district where the name Pylos has clung for millennia, with the greater number of royal tombs nearby, a large settlement about it, and close to the best harbor in the whole district, should mark the site of the palace of the Neleids. The less luxurious and less populous settlement would obviously represent the stronghold of a minor prince who controlled one of the eight lesser cities of the kingdom.

In any discussion of this problem, it is only fair to review thoroughly the references to Nestor's Pylos in the Homeric poems, for it is mainly on them that the *homerikoteroi* have built their case. Our objection to their unconscious distortion of this evidence has already been expressed. To take a case in point: Homer says that

<sup>17</sup> Dörpfeld (*loc. cit.*) objected that, according to Homer, Nestor's city did not lie on the sea; neither did Tiryns or Athens, but each of them was situated fairly close to the best harbor in its respective district.

<sup>18</sup> Dörpfeld (cf. n. 9) wrote a thorough account of his excavation of the bee-hive tombs and devoted a few paragraphs to the actual remains of the settlement on the acropolis. He promised to amplify the latter, but apparently never found time to do so. A published examination of the pottery found on the hilltop would have been especially valuable. He mentions "very numerous monochrome prehistoric and Mycenaean sherds," and in another place he says that the remains at Kakovatos are "of the right time for the Neleid city, i.e. the second half of the second millennium B.C." Cf. Müller's publication of the pottery from the tombs (*AM.* xxxiv, 1909, pp. 269 ff., pls. 12-24).



Telemachos' journeys from Ithaka<sup>19</sup> to Pylos and from Pylos back to Ithaka were accomplished in little more than one night in each case.<sup>20</sup> The distance from Ithaka to Triphylian Pylos is ca. 130 km., and from Ithaka to Messenian Pylos it is ca. 190 km. Dörpfeld believed that a Mycenaean sailing ship could not exceed 10 km. per hour and therefore concluded that the thirteen hours required for the journey to the northern site conform to Homer's account, while the nineteen hours necessary to reach the southern site rule it entirely out of the question. But when we read that the divine Athena, who was herself a passenger on the ship, "sent a favoring breeze rushing violently through a clear sky, that the ship might speedily finish her course over the salt water,"<sup>21</sup> we begin to wonder if this ship was subject in the poet's mind to the prosaic limits of time and space. When we read further of a Phaeacian ship which accomplished a journey from its home island (probably Corecyra) to Euboea and return in one day without even tiring the oarsmen,<sup>22</sup> we become sceptical as to the trustworthiness of arguments based on the strict reckoning of distances and speeds in these poems.<sup>23</sup>

The most serious difficulty concerns Telemachos' journey by chariot from Pylos to Sparta and return, each trip occupying two days, with the intervening night spent at Pherai, the home of Diokles.<sup>24</sup> There can be no doubt that in Mycenaean and Classical times a town called Pherai was located on or near the site of modern Kalamata.<sup>25</sup> Apparently the ancients, even including the critical Strabo, saw no objection to the narrative of a journey by chariot from Messenian Pylos to Kalamata (Pherai) in one day and through the Taygetus range to Sparta the next. This fact in itself is worthy of notice. Most modern scholars, however, are inclined to doubt the practicability of such a route.<sup>26</sup> To this they add a second difficulty—that in two passages<sup>27</sup> Homer says that Ortilochos and Diokles, kings of Pherai, were son and grandson respectively of the river-god Alpheios. They conclude from this that the Pherai ruled by Diokles must have been located near the Alpheios, and they suggest an entirely different route for Telemachos' journey—from Triphylian Pylos to an otherwise un-

<sup>19</sup> Dörpfeld's identification of the island of Leukas as the ancient Ithaka is well known. That problem, however, affects the present issue very little.

<sup>20</sup> *Odyssey* ii, 413-434; iii, 1-12; xv, 282-300, 495-500.

<sup>21</sup> *Ibid.* xv, 292-294.

<sup>22</sup> *Ibid.* vii, 325, 326.

<sup>23</sup> Even apart from the probable element of the miraculous, Dörpfeld's argument would still be inconclusive. It is clear from the account that some hours of daylight were included in the time of the trip; hence one might just as well state that they might have been at least sixteen hours on the way. Furthermore, it is quite within the range of possibility that a Mycenaean ship, chosen for its speed, as is expressly stated in this case, and with the aid of a strong wind to fill its sails and a crew of lusty oarsmen, might have averaged a speed of thirteen or fourteen km. per hour. I have consulted an old sailor on this problem and he points out that an ordinary sailing boat, in all probability inferior in speed to the best of the Mycenaean corsairs, can make a speed of ten miles an hour with a strong wind.

Strabo's argument that, if Telemachos had sailed from Messenian Pylos, Homer would not have mentioned unimportant places on his route such as Krouni and Chalkis, but the rivers Neda, Alpheios, and such landmarks, is rendered pointless by the fact that in either case he would have had to pass the mouth of the Alpheios, and yet there is no mention of this most important of stages in his voyage.

<sup>24</sup> *Odyssey* iii, 1-5, 484-497; xv, 182-193.

<sup>25</sup> Brandenstein in *RE*. xix, 1801-1805, s.v. *Pharai in Messenien*.

<sup>26</sup> Cf. Dörpfeld, *loc. cit.*; Lippold in *RE*. iiiia, 1344, 1345, s.v. *Sparta*; Bursian, *op. cit.* i, 104, 105.

<sup>27</sup> *Iliad* v, 541-546; *Odyssey* iii, 488, 489.

known Pherai somewhere in the Megalopolis plain and on to Sparta, skirting the Taygetus range.<sup>28</sup>

These apparently formidable arguments have perturbed many who would otherwise favor Messenian Pylos. But there is no real justification for the creation of this hypothetical Arkadian Pherai. In another passage<sup>29</sup> Homer tells how Odysseus met Iphitos "at the home of Ortilochos [i.e. Pherai] in Messenia," when he came to recover the sheep that the men of Messene had carried off in their benched ships. This proves that the city of Ortilochos and Diokles was the well-known Pherai at the head of the Messenian gulf. This maritime Pherai is referred to in several other passages in the poems, but is not elsewhere specifically said to be the city of Ortilochos.<sup>30</sup> Furthermore, the categorical assertion that, if a man is born of a river-god, he and his descendants must continue to live near that river<sup>31</sup> seems to be disproved by another passage in the poems<sup>32</sup> where Neleus, the father of Nestor, is said to have been the son of Poseidon, who approached Neleus' mother in the guise of her lover, the Thessalian river-god Enipeus—yet Neleus migrated far away to southwestern Peloponnesos.

Since, then, the existence of a second Pherai in Arkadia cannot be proved on independent evidence, there is much less reason to doubt that it was at the well known town at the head of the Messenian gulf that Telemachos broke his journey. If the account is to be literally interpreted, he must have continued across the Taygetus range to Sparta. The Langada is admittedly a very rugged and unlikely route for cart traffic, but it is too often forgotten that there are several other possibilities. The pass from Giannitza to Mistra is easier and was apparently in more regular use than the Langada in historical antiquity.<sup>33</sup> There are still traces of an ancient road in the valley leading up from Giannitza, and Valmin is of the opinion that the terrain allows a cart road to continue beyond the preserved traces.<sup>34</sup> Also, some of the other passes, especially further south, might well have permitted cart traffic.<sup>35</sup> But, even

<sup>28</sup> This route, too, would have had its difficulties for a chariot, especially the first lap from the coast inland to the plain of Megalopolis, and there is no general agreement among the supporters of an Arkadian Pherai as to the most practicable passes.

<sup>29</sup> *Odyssey* xxi, 9–16.

<sup>30</sup> Leaf (*Homer and History*, pp. 365–367) admitted this, but concluded that "since commentators agree that not even the engineering skill of the Mycenaeans could build a road over Taygetus, there must have been two Pherais, one inland and one on the sea and both described as the home of Ortilochos." He explains this by the assumption that the name moved southward, carrying with it the family legend, "just as the name Pylos moved southward."

<sup>31</sup> Cf. Bolte in *RE*, xix, 1798–1801, s.v. *Phara in Arkadien*; Dörpfeld, *loc. cit.* Bolte says that the existence of this town is known only from Homer.

<sup>32</sup> *Odyssey* xi, 235–244.

<sup>33</sup> Kolbe (*AM*, xxix, 1904, pp. 364–378) plausibly identifies it with a δίοδος mentioned on a boundary delimitation of 78 A.D. (*IG*, v, 1, 1431, ll. 20, 26) and the Langada with the συνοροία in the same inscription. On the Taygetus passes in general and for a full bibliography cf. *RE*, iia, 1343 ff.

<sup>34</sup> *Études Topographiques*, p. 50.

<sup>35</sup> This is the opinion of Carl A. Roebuck, who has investigated Messenian topography very thoroughly and kindly communicated his views on this point to me by letter.

Another possibility is that there is here some confusion between the sea and land route from Pylos to Sparta. Before Telemachos sets out, Nestor remarks that he could make the journey in his own ship—this, incidentally, is a point in favor of the southern Pylos, for it would have been a much longer and more unlikely route by sea from the northern site—or borrow a chariot (*Odyssey* iii, 328). For a ship hugging the coast, Pherai would have been a suitable half-way port between Messenian Pylos and Gytheion, the port of Sparta.

if we were to admit the geographical difficulty, it is very probable that in this passage we are dealing not with a single actual journey but with the conventionalized account of which Homer is so fond. Such expressions as "All day they swayed the yoke, and the sun set and all the ways were darkened" suggest that the poet simply used his stereotyped word pattern to get his hero conveniently from Pylos to Sparta and back again. Also, there is a hint of the miraculous when Athena tells how she herself was Telemachos' guide on this journey, and she asserts: "Lo, he knows no toil, but sits in peace in the men's hall."<sup>36</sup> Thus, it is perhaps beside the point to go into details as to the possible routes taken on a journey conceived in such a setting.

Homer's remark that the river Alpheios flowed "through the land of the Pylians"<sup>37</sup> has led Strabo and his followers to conclude that territory belonging to Nestor lay on both the north and south sides of that river. They assume, therefore, that the Alpheios district was the central section of Pylian territory and argue that the capital would certainly not have been located as far away from the Alpheios as Koryphasion. But their assumption is directly contradicted by two other passages which establish clearly the north and south boundaries of the realm. We read of a "city, Thyroessa, a steep burg far off on the Alpheios, the uttermost city of sandy Pylos,"<sup>38</sup> and of seven cities offered by Agamemnon to Achilles which are "all near the salt sea [the Messenian gulf] on the uttermost borders of sandy Pylos."<sup>39</sup> The first passage points to the Alpheios as the natural boundary between the territory of the Pylians and Eleians,<sup>40</sup> and the second shows that Nestor's domain included all of Messenia except a strip along the southern coast. Hence, Messenian Pylos would naturally have been included.

Dörpfeld felt that the order of enumeration of the nine cities of the Pylian kingdom, with Pylos first and then a "northern group" and a "southern group,"<sup>41</sup> suggests that Pylos was in the center, i.e. in Triphylia. But, if the order of the cities in the catalogue proves anything, it merely shows that Pylos was the most important and so was named first. Nor is there any inherent necessity for the location of the capital in the center of the kingdom. A strong dynasty settled at Messenian Pylos would have had very little room for expansion southward, none westward, would have been confronted with dependencies of the strong state of Mycenae to the East, and so would have found a logical region for expansion to the North as far as the Alpheios.

Nestor tells how on one occasion the Pylians defeated the Eleians north of the Alpheios and seized a great many cattle which they drove by night "within Neleian Pylos to the citadel."<sup>42</sup> Strabo and others following him argue rightly enough that the Pylians could not possibly have driven the cattle from Eleian territory to Mes-

<sup>36</sup> *Odyssey* xiii, 421-424. <sup>37</sup> *Iliad* v, 545. <sup>38</sup> *Ibid.* xi, 711, 712. <sup>39</sup> *Ibid.* ix, 149-153, 291-295.

<sup>40</sup> It is scarcely beyond the bounds of poetic license to describe a river as flowing through a land of which it really formed a boundary. Or it may be that the Pylians controlled some of the territory east of the Alpheios near the source of its main branch, and in that case the poet could logically say that the river flowed *through* the land of the Pylians. Again, it is possible that at one time the constant strife between the Pylians and Eleians may have gained for Pylos some territory on the north bank of the Alpheios.

<sup>41</sup> *Iliad* ii, 591-594. It is difficult to group these cities categorically, since in only two or three cases is the exact location generally accepted.

<sup>42</sup> *Iliad* xi, 682, 683.

senian Pylos in one night.<sup>43</sup> But it is not stated that they were driven to the capital city; the whole country south of the Alpheios was called Pylos, and the citadel referred to may very well have been one of the more accessible cities belonging to Nestor, perhaps Thyroessa.<sup>44</sup>

Dörpfeld also believed that there is in Homer's description a conscious distinction between the magnificent palaces of Alkinoos and Menelaos and the modest dwellings of Odysseus and Nestor. The roughly worked foundations and column bases, the apparent absence of frescoed walls and of glass and alabaster friezes in the building discovered at Kakovatos corresponded, he thought, to the description of Nestor's palace, and are in marked contrast to the palaces we know at Tiryns, Mycenae, and in Crete. It is true that Homer goes into greater raptures over the palaces of Alkinoos and Menelaos, but, while making due allowance for his use of stereotyped epithets, it would hardly have been to a hovel that he applied the terms "famous halls," "lofty doors," "inmost sleeping chamber," "echoing corridor," and the like in describing Nestor's palace. The palace found at Ano Englianos is not too elaborate to fit his description and to be associated with Nestor's rank and power.<sup>45</sup> Furthermore, if this palace is too elaborate for Nestor, to what richer and more luxurious king controlling this region are we to assign it? Surely, if there had been such a ruler, he would have found a place in Homer's account and in later legend.

The race of the inhabitants of Pylos, which has been mentioned by Dörpfeld and others, cannot be of much use in settling the problem until clearer distinctions can be drawn. Pausanias says<sup>46</sup> that there were two separate prehistoric peoples in Messenian Pylos: (1) the Leleges, brought from Megara by Pylos, the founder of the settlement; (2) the Pelasgians of Iolkos (in Thessaly) led by Neleus, who forced the Leleges to withdraw from Pylos into Elis. Furthermore, in the Homeric poems there are clear indications that the descendants of Herakles (the Dorians) were bringing increasing pressure to bear on the people of Neleus (the Pelasgians).<sup>47</sup> Curtius and Bursian sought to clear up the relation between the Messenian and Triphylian sites by the supposition that the Neleids at Messenian Pylos were driven out by the Dorians and founded a new Pylos in Triphylia. Dörpfeld, on the other hand, believed that the Neleids founded their city in Triphylia immediately on their arrival

<sup>43</sup> This is a distance of more than 750 stades, i.e. ca. 150 km.

<sup>44</sup> This is made more likely by the fact that, when the Eleians retaliated for this raid, they laid siege to Thyroessa. Moreover, it is not expressly stated that the journey was accomplished in one night. It would, indeed, have been an impossible task to drive cattle even 75 km. (the distance from Triphylian Pylos to north of the Alpheios) in one night.

Homer then tells how the Pylian cavalry going to meet them waited until dawn at Arene near the river Minyeios (probably the Anigros) and arrived at the Alpheios (ca. 18 km.) at noon. Dörpfeld believed that the cavalry made the journey from the capital city of Pylos to Arene during the night before the battle, and so he contended that the distance of ca. 57 km. from Triphylian Pylos would be reasonable, while ca. 132 km. from Messenian Pylos would be quite impossible. But the account is not so specific; Athena came *by night* to warn the Pylians of the siege of Thyroessa, and it is very unlikely that the cavalry could have prepared for a march, covered 57 km., and still *awaited the dawn* at Arene. There is nothing in the poem to prevent their having taken 24 hours or more to reach the vicinity in the evening.

<sup>45</sup> For instance, none of the floors uncovered in the trial trenches seemed to show any decoration to relieve the plain cement. The pottery is apparently rather coarse and for the most part undecorated.

<sup>46</sup> *Loc. cit.*

<sup>47</sup> Cf. *Iliad* xi, 690-693.



in the Peloponnesos and that they later split up (presumably as a result of the Dorian invasion) and some settled at Messenian Pylos, others in Elis. Leaf also favored this move by the Neleids from the northern to the southern site.

To judge from vases and other contents of the bee-hive tombs, both the Triphylian and Messenian sites were inhabited at the same time, and both palaces (if such the building at Kakovatos can be called) were apparently destroyed by fire. Dörpfeld's dating is very indefinite (the second half of the second millennium B.C.), but the palace at Ano Englianos was never again inhabited after its destruction ca. 1200 B.C. or slightly later. Probably the Kakovatos settlement was destroyed at the same time. This would seem, then, to be another link in the chain of evidence for a thorough-going program of pillage by the invading Dorians.

It is clear from the Homeric poems that Nestor's capital was situated back from the sea on a high hill, with a broad plain below.<sup>48</sup> Both of the sites in question agree admirably with this description. The lack of an adequate supply of drinking water was one of the chief objections to the acropolis at Koryphasion, but there is a good spring located ca. 1 km. north of the newly discovered Messenian site. Dörpfeld said nothing about the proximity of a water supply to the Kakovatos settlement.

Perhaps the question of the site of Nestor's Pylos still cannot be decided to the full satisfaction of all interested. If the recently discovered tablets can be deciphered, they will almost certainly settle it one way or the other. Meanwhile, it is submitted that a very considerable balance of evidence favors the Messenian site.<sup>49</sup>

W. A. McDONALD

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<sup>48</sup> This was a point in favor of the Kakovatos site, when those who favored the Messenian Pylos thought it had been located on the high promontory (classical Koryphasion) at the north end of the bay of Navarino, but the newly discovered site clears up this difficulty. The Kakovatos settlement is ca. 2 km. from the sea, that at Ano Englianos ca. 5 km.

<sup>49</sup> An amusing incident occurred during the trial excavation at Ano Englianos, when a local policeman was sent to halt the work on the ground that our permit allowed us to excavate only in the modern district of Pylos, while we were actually digging in the modern district of Triphylia. So perhaps, after all, scholarly differences will be reconciled and it will be agreed that Nestor lived at the southern of the two sites in question and yet in Triphylia.



1942  
October-December

ARCHAEOLOGICAL NEWS AND DISCUSSIONS  
NOTES ON RECENT ARCHAEOLOGICAL EXCAVATIONS  
SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN  
CURRENT PUBLICATIONS

STEPHEN B. LUCE, *Editor-in-Charge*

Fogg Museum of Art, Harvard University, Cambridge, Mass.

NECROLOGY

**George A. Barton.** — The Rev. Professor GEORGE AARON BARTON, M.A., Ph.D., D.D., died in his home at Weston, Mass., on July 1, 1942, at the age of eighty-three. Dr. Barton was born in the Province of Quebec, graduated at Haverford College in 1882, and took his doctor's degree at Harvard University in 1891, the year in which he became Professor of Biblical Literature and Semitic Languages at Bryn Mawr College. In 1922 he succeeded the late Prof. Morris Jastrow as Professor of Semitics in the Graduate School of the University of Pennsylvania, serving also as chairman of the Group of History of Religion. To this office he added in the following year that of Professor of New Testament Learning in the Philadelphia Divinity School, holding both chairs until his retirement. He was early active in the organization and operation of the American School in Jerusalem, then under the auspices of the Archaeological Institute. He was Director of the School in 1902-03, serving also later as Secretary and Treasurer. When this School developed by legal incorporation in 1921 into the American Schools of Oriental Research, he became its treasurer and also official Director of its School in Baghdad, superintending its brilliant undertakings. He served in these offices until 1934. He was an active member of the Archaeological Institute, the American Oriental Society, the Society of Biblical Literature, the American Philosophical Society, a Fellow of the American Association for the Advancement of Science, and a constant contributor to their journals. This brief survey of Dr. Barton's official activities indicates the wide range of his interests, while a list of his publications exhibits his active and original scholarship in these several distinct fields. As a youth he belonged to the generation that was being fructified by the revelations of Oriental Archaeology, and every novel discovery kindled his eager mind for its interpretation. His earlier notable work was in the Sumerian and Akkadian field, and this is em-

bodied, for example, in his later inclusive *Royal Inscriptions of Sumer and Akkad*. In the general Semitic field he published *A History of the Hebrew People, Semitic and Hamitic Origins, The Religion of Israel*, and the most useful work, *Archaeology and the Bible*, reaching the seventh edition. In the early Christian domain may be named his *Jesus of Nazareth, a Biography, The Apostolic Age and the New Testament*. His mental activity till towards the end appears in his publications on the Ras Shamra texts, which afforded the most recent fascinating study for the Semitist. In his person Dr. Barton may have appeared at first as rather a closeted scholar, but he took a lively interest in all things human of Church and State, was a winning and inspiring teacher, and a man full of humor, with many an anecdote and happy reminiscence to offer from his prodigious memory.

JAMES A. MONTGOMERY

**Sir W. M. Flinders Petrie.** — The death of this master of Egyptian archaeology is reported in a dispatch from Jerusalem of July 28, 1942. He was in his ninetieth year. Born in Charlton, England, on June 8, 1853, he began his archaeological work in 1875, when he worked on British ruins. He made his first visit to Egypt in 1880, and, barring the years of the First World War, carried on excavations there steadily until 1926, when he transferred his operations to the Holy Land. Among his most important contributions to our knowledge of Egyptian archaeology and history were the discoveries of Naukratis in 1885, Daphnae in 1886, the temple of Medum in 1891, and, in later years, temples at Thebes, and tombs of early kings at Abydos. From 1892 till 1933, he held the Professorship of Egyptology at University College, London, being made *emeritus* in the latter year. He was knighted in 1923, and held numerous honorary degrees and membership in many Learned Societies. An indefatigable worker, he would swing a pick or spade with his men up to beyond his eightieth year, and think nothing of a fourteen-hour day of work. His bibliography, too great to be enumerated here, includes seventy-

five books, and countless articles and reports. It may truly be said of him that no man has done more than he to advance the sum of our knowledge of Egyptian and Near Eastern history,

Guglielmo Ferrero died in Berne, Switzerland, on August 4, 1942, at the age of seventy-one. Exiled from Italy for his opposition to Fascism, he had sought refuge in Switzerland, and since



(Portrait by Marie Danforth Page)

GEORGE A. BARTON

civilization and art, and their influence on the culture of other races and peoples. His widow, whom he married in 1897, survives him, with a son and a daughter.

S. B. L.

1930 had held the chair of Modern History in the University of Geneva. He was born on July 31, 1871 at Portici, near Naples, and received his University education at Pisa and Bologna. His first important studies were in criminology, col-

laborating with Lombroso (whose daughter he later married) in *The Female Offender*. He received his popularity as an historian through his *Grandezza e Decadenza di Roma*, published in 1902, which was translated into English (*The Greatness and Decline of Rome*) in 1907-09. This book established his fame, although its conclusions were not generally accepted by scholars of the period. Other books of importance in this field were *Characters and Events of Roman History*, *The Women of the Caesars*, and *The Life of Caesar*. He lectured in the United States in 1908, and, on his return, wrote the inevitable book on America that was expected of visiting celebrities. He was a Radical Democrat in politics, and as a youth of twenty, in 1891, he was banished from Italy for a brief period for Socialistic ideas, but was soon permitted to return. In the First World War, he devoted his energies to advocating Italian intervention on the side of the Allies during the period of his country's neutrality. With this political background, and with an ardent belief in democracy, it was obvious that he could never be in sympathy with Fascism, and in 1935, after his exile, his writings in Italian were seized and banned by the Fascist Government.

S. B. L.

**Addison L. Green.**—ADDISON L. GREEN died in Holyoke, Mass., on June 24, 1942. Born in Westfield, Mass., on October 23, 1862, he was graduated from Wesleyan University in 1885. He was admitted to the Massachusetts bar in 1887 and began practice in Holyoke. He was a member of the Judicature Commission, appointed in 1919, to investigate the judicature of the Commonwealth and was chairman of the Judicial Council of Massachusetts from 1927 to 1929. He was for years chairman of the Board of Directors of the Farr Alpaca Company in Holyoke and was also a member of the Board of Trustees of Wesleyan University.

In addition to Mr. Green's interests in law and business, he early developed an interest in Classical Archaeology and later in Prehistory. My first meeting with him occurred in 1924, while I was conducting the fourth annual summer term of the American School of Prehistoric Research; it was at Les Éyzies (Dordogne), where under my guidance he saw for the first time some of the rare rock shelters and caverns adorned with palaeolithic mural art. He was also present the day our School began the excavation of our leased rock shelter at Sergeac, known as the *Abri des Merveilles*, where

the School was to dig for seven summers. He helped us to incorporate the School in 1926 and became chairman of our Board of Trustees, a position which he held until his death. His devotion to the School's welfare never faltered and expressed itself in many ways, including generous subscriptions to its funds. Even his summer vacations were spent in part with the annual summer terms of the School. His presence always meant much to the Director as well as to the students in attendance. His ever increasing interest in Prehistory was shown by his presence at the International Congress of Prehistoric and Protohistoric Sciences, held in Oslo, Norway, in 1936.

GEORGE GRANT MACCURDY.

## GENERAL AND MISCELLANEOUS

**Urus Bone from Denmark.**—In *Acta A.* xi, 1940, pp. 207-12, figs. 1-4, JOHANNES BRØNSTED reports on "Human Figures on a Danish Mesolithic Urus Bone," which was found by accident in a peat bog at Ryemarksgaarden in Denmark (the urus was a large, long-horned wild ox, now extinct, which roamed the German forests and is mentioned by Julius Caesar). On one side of this metatarsal bone (0.28 m. long) is incised a representation of five human figures in a row and three parallel vertical zigzag lines. On the other side are more vertical zigzags, three groups of three and some other incised figures (?).

Of especial interest is the pollen-analysis of the peat found adhering to the bone. No less than fifteen pollens are listed in a table with their percentages. On the basis of this pollen-analysis and of the style of the incised decoration, the inscribed bone is dated in the *Mesolithicum* or in the centuries around 6000 B.C.

**Epsom.**—In *A.J.* xxii, 1942, pp. 123-138, SHEPARD FRERE discusses the contents of an iron-age chalk pit, dated in the first century B.C. Much of the paper is concerned with a discussion of haematite polished ware and its development in southeastern England from the sixth century onwards.

## EGYPT

**Three Shaft Graves.**—HJALMAR LARSEN in *Acta A.* xi, 1940, pp. 161-206, figs. 1-28, describes in detail part of the results of the Swedish Expedition at Maassara, north of Helwan, in 1937. Plans and cross-sections along with many photographs supplement the text. (A previous article had reported on Tomb No. 6: *ibid.* pp. 103 ff.). All these

shaft tombs had been plundered, but the bodies had been carelessly reinterred. Human bones were found in No. 1, three skeletons in No. 2 and two in No. 3. Along with these skeletal remains and the earth fill were found numerous fragments of stone vessels, pottery, faience beads, other stone objects, flints, and two pieces of aeruginous copper.

In two cases (Nos. 2 and 3), scanty remains of once overlying mastabas were found. The characteristic feature of these three tombs was the rectangular shaft, varying from ca. 1.75 x 1.25 m. to 2.00 x 1.50 m., which was cut down in the rock and clay to a depth of ca. 10.00 m. in two cases, to ca. 8.00 m. in Tomb 2. Opening off the south side at the bottom of the shaft was a burial chamber of varying dimensions: ca. 1.70 m. and 2.00 m. in length in Nos. 1 and 2, and 4.25 m. including the doorway in No. 3.

In Tomb 2, the remains of wood and impressions of three coffins were found in a slanting position, along with a skeleton in each, in the upper half of the shaft. They had apparently been hastily or carelessly reinterred in the shaft instead of in the burial chamber. Of the skeletons, some were outstretched, some in the contracted position. Only the second skeleton of No. 3, found in a niche of the burial chamber, had been undisturbed. In every case, the head was placed to the North. Up through the IIIrd Dynasty the head was usually orientated to the South but in the IVth Dynasty it became more common and in the Vth and VIth Dynasties the general custom was to orientate the head to the North.

A comparative study of the types of the shaft tombs and of the contents, presented in detail and with illustrations, leads the author to date these tombs in the latter part of the IVth Dynasty or between the IVth and Vth Dynasties (Tomb 6, without a burial chamber, had been dated in the previous article in the IIInd Dynasty).

**Fragment from Statue of King Eye.**—A fragment on loan in the Museum of Fine Arts in Boston is identified as a relief, long believed lost, recorded and drawn by Lepsius, as from Medinet Habu. It belongs on the throne of the colossal statue of King Eye, successor to Tutankhamen, in the Cairo Museum. This restoration is tentative, and cannot be confirmed without measurements on the Cairo statue (ELIZABETH S. EATON, in *BMFA*, xl, 1942, pp. 42-45; 4 figs.).

**Hatshepsut's Obelisk.**—WILLIAM STEVENSON SMITH identifies two fragments of Egyptian sculp-

ture in the Museum of Fine Arts in Boston as coming from the ruined second obelisk of Queen Hatshepsut at Karnak. The first, which still stands, is the tallest remaining in Egypt, being 97 ft. high, and with the ruined one flanked the entrance to the Fifth Pylon, built by Tuthmosis I, father of the Queen. These obelisks were erected under the supervision of her favorite, Senmut, architect of the temple of Deir el-Bahari, and were intended to show her devotion to Amen. After her death, when her nephew, Tuthmosis III, for whom she had acted as regent, came to power, he walled up the two obelisks. Later, Ahkenaten removed the name of Amen from them, but this was restored by Seti I. In 1899, Joseph Lindon Smith identified one of these fragments, with the Queen's portrait, as coming from Hatshepsut's obelisk, but this was not accorded the recognition it deserved. One fragment, with figures of Amen, a corner block, is shown to come from the northeast corner of the seventh register from the top, just below a fragment once at Abu Tig, identified by Daressy in 1888, the present location of which is unknown. The fragment with the Queen's portrait may be from the seventh register of the north face, but this cannot be quite so definitely demonstrated. These fragments serve to remind us of the bitter strife existing between Hatshepsut and Tuthmosis III, and it is interesting to note that the Boston Museum also owns the sarcophagus of Tuthmosis I, prepared for that king by Hatshepsut when she was planning to transfer his burial to her own tomb. After her death, Tuthmosis III restored the body to its original tomb in a new coffin. The reliefs on the sarcophagus in Boston bear a strong resemblance to those on the obelisks, and may be by the same craftsmen (*BMFA*, xl, 1942, pp. 45-49; 6 figs.).

**Collection of Egyptian Antiquities.**—The Alnwick collection, started by Algernon, Baron Prudhoe (later Duke of Northumberland) as early as 1816, and for years in Alnwick Castle, where it was catalogued by Birch in 1880, has now been deposited on loan by the present Duke in the British Museum. SIDNEY SMITH, in *BMQ*, xiv, 1940, pp. 27-31, pls. VII, VIII, and IX a, describes and publishes two selected objects from this collection. Particularly interesting is no. 752, a wooden statuette of a little girl, holding a large pot, paralleled only by a statuette in the Bibliothèque Nationale, and dating in the Eighteenth Dynasty, perhaps in the reign of Amenhetep III. Another important object is a haematite cylinder seal, acquired after



Birch's catalogue was published, dating not earlier than the fifteenth century B.C. It is the work of a Babylonian seal-cutter in Syria, who was trying to represent men in Cretan dress, and was familiar with foreign works of art.

### MESOPOTAMIA

**Intellectual and Social Progress in the Ancient Near East.**—Under this title E. A. SPEISER, in *Studies in the History of Culture*, 1942 (presented to Waldo G. Leland), pp. 51–62, defends four propositions: (1) that available evidence points to Mesopotamia as the oldest center of scientific observation permanently recorded; (2) that this activity includes education and language study, jurisprudence, and the mathematical and natural sciences; (3) that these elements are interrelated and based on a concept of society restricting the powers of the state, and recognizing the rights of the individual; (4) that owing to the authoritarian government of contemporary Egypt, science, though notable in several fields, lacked the breadth and balance shown in Mesopotamia. For his demonstration of these principles, he takes Lower Mesopotamia, the land of Ancient Sumer, in the middle of the fourth millennium B.C. The area under discussion extends southeast from Babylon, past Uruk, along the Euphrates to Ur. Among the first inscribed documents to be found, those of Uruk dating about 3500 B.C., was a small collection of scientific records, the earliest known to man to date. These records consist of lists of related entries, giving groupings of birds, fish, domestic animals and plants, and presuppose careful observation, organization, and analysis of accumulated data. They also lead to more detailed study of the subject matter, and form the beginnings of the sciences of zoölogy and botany, and later, of geology and chemistry. Therefore, the beginnings of these sciences may be traced back to Mesopotamia. Many of the words used today, for example, by botanists are derived from Sumerian names. (A list of some of these is given). Language study begins when lists of animals are given in one column in Sumerian, and in another in Akkadian. But these lists are also conceived as a means of preserving the knowledge of script, hence their value in affording insight into pedagogy and education as practiced by the Sumerians.

After the disappearance of the Sumerians, their language had to be kept alive by the Akkadians, Babylonians, and Assyrians in order to preserve the records made by them, and translation into

the vernacular begins to appear. This involved the preparation of syllabaries, vocabularies, lists of synonyms, and the like. It is to all this apparatus that we owe our knowledge, not only of the dialects of Sumerian and Akkadian, but also of Hittite, Hurrian, and Elamite. The fields of mathematics and astronomy have always been known to have had their beginnings in Mesopotamia, and go back in time before the introduction of writing, in the age of the proto-historic Sumerians.

During the third millennium, the system of writing had attained a complete flexibility. This was due in no small degree to the Sumerian conception of the social order, as one based on the sanctity of private property and individual rights and initiative. The earliest texts were devoted to temple economy, later launching out into private business. Under the laws thus developed, all—ruler and subject alike—were responsible, and the ruler was the servant of the law, which guided him and safeguarded his subjects. This condition persisted into the Sargonid period. A careful study shows that there was no theory of the divine right of kings in Sumerian society, and that even the success of the Akkadian Sargon in founding a great empire did not bring about a corresponding success in establishing the deification of the monarch. Although it was tried again in later times by others, this principle remained alien to Mesopotamian civilization. As in law, so in literature, the limited powers of the ruler are demonstrated. This system was capable of promoting intellectual progress on a large scale, and its vitality is attested by its persistence under Sumerians, Akkadians, Babylonians and Assyrians, and in races like the Elamites, Hurrians and Hittites, who came within their influence. Such intellectual growth is not seen in contemporary Egypt, which was under an authoritarian system, based on the deification of the ruler, and where, as he was the owner of everything, the concept of private property and individual rights had no place, and the Pharaoh embodied the law in his own person. Egyptian writing is some centuries later than that of Mesopotamia, and indeed the idea of writing may well have been acquired by Egypt from her commercial and cultural relations with that region.

**Sumerian Inscribed Bowl.**—In *BMQ.* xiv, 1940, pp. 32–33, C. J. GADD reports the acquisition by the British Museum of two fragments of a bowl of deep brown sandstone, bearing parts of



an inscription of U-tug . . . , an early ruler of Kish. They were excavated at Nippur, and published in 1896 by Hilprecht, in his *Old Babylonian Inscriptions*. While later discoveries have robbed this bowl of its position as one of the earliest of Sumerian inscriptions, it is a welcome accession to the Museum, and is still of great interest to students of Sumerian history and culture.

### PALESTINE AND SYRIA

**Habiru and Hebrew.**—*PEQ.*, Jan.-April, 1942, H. H. ROWLEY writes on the Habiru and Hebrews. Both he and L. W. JACK consider the Amarna letters as relevant to the settlement of Israel in Palestine. Rowley connects them with a pre-Mosaic settlement of certain tribes; Jack with a post-Mosaic settlement of tribes led by Moses out of Egypt. Both identify Habiru and Hebrews.

Rowley holds that in the early part of the fourteenth century B.C. an Israelite group, which had for some time been settled in the south of Palestine and which certainly contained Judahite, Simeonite, and Levite elements, obtained possession of further districts in south Palestine. There were associated with them Kenite and other non-Israelite elements. The Simeonite and Levite elements reached the Shechem district, where they were guilty of treachery, so Simeon had to fall back on Judah, and Levi was scattered and became a tribe of priests. Simultaneously Leah tribes were gaining possession of other Palestinian districts; farther to the north the concubine tribes, who had more distant connections, were being settled. In the South there was intertribal jealousy, and some went to Egypt, where one in the time of Ikhnaton attained position and honor. Among them were the forbears of the Levite Moses, one of whose ancestors had married into the Yahweh-worshipping Kenite clan. This explains the name Jochebed in the family and the flight of Moses to a Kenite when he had to leave Egypt. This flight took place under Ramses II, who was the Pharaoh of the Oppression; Merneptah was the Pharaoh of the Exodus.

The Amarna letters tell of trouble in south Palestine and in north Palestine. Some texts call the enemy SA.GAZ; those from Abdi-Khiba of Jerusalem call them Habiru or Hapiru. Rowley considers them kindred or associated tribes. The Habiru revolution and the invasion by Joshua, however, are not to be identified.

The descent into Egypt took place in the Amarna age and may be roughly synchronized

with the settlement of Judah in the South and the attempted settlement of Simeon and Levi in the central highlands. *Gen.* xxxvii deals with a time when there were two groups of Israelites: one around Hebron and the other in the Shechem district, prior to Joseph's being carried into Egypt.

In the inscriptions of Seti I and Ramses II reference is made to a people 'Asaru, apparently Asher. In the Amarna letters there is evidence that Zurata of Acco fought against SA.GAZ. Accordingly, Rowley would connect the settlement of Asher with the Amarna age. He connects Ramses II with the Oppression and Merneptah with the Exodus, because he can thus best harmonize the Biblical material with the archaeological evidence from Egypt and Palestine. He places the descent into Egypt about one hundred-fifty years before the Exodus. Accordingly, he considers *Ex.* xii:40 and *Gen.* xv:13 as a later tradition. Since Joseph himself was a Hebrew, the Joseph story provides a fitting explanation of the silence of the Egyptian chancellery in response to the urgent appeals for help against the Habiru.

Rowley does not equate Habiru and Hebrews philologically, nor does he equate their area of meaning. Often it is unnecessary to assume any relationship between Habiru and the Hebrews of the Old Testament. As opposed to the view that a non-ethnic term developed an ethnic significance, Rowley believes on the contrary that the ethnic sense is the older and that later the word developed a pejorative nuance. He supposes that the word Hebrew had become a term of contempt, synonymous with serf; twice it fell into the background, once at the Exodus and again when Saul had freed the Israelites from the Philistines. Whether Hebrew and Habiru are equated philologically, Rowley offers no etymology of the word Hebrew, saying: "So long as the philological equation of Habiru or Hapiru with 'Aperu and Hebrews remains possible but uncertain, it seems wiser to refrain from offering an etymology for 'ibrim, since any suggestion must assume either the admittedly doubtful equation or the equally doubtful lack of equation. And for the view that Habiru and Hebrews are terms that overlap, and that the Amarna letters are relevant to the history of the Hebrews, it seems wiser to continue to rely on non-philological grounds, which are more abundant than Kraeling allows. They do not yield any 'proof', but I think they yield stronger probability than anything that can be alleged against them."

**Sodom and Gomorrah.**—In *Bibl. Archaeologist* v, 1942, pp. 17–32 (8 figs.) J. PENROSE HARLAND begins a series of studies of these two cities of Bible story. This article seeks to determine their location, as well as that of the other “Cities of the Plain,”—Admah, Zeboiim and Zoar—and the Pillar of Salt of the story of Lot’s wife. No actual remains of any of these cities have been discovered, but it is usually agreed that they were in the “Ghor” or valley of the Jordan, which also includes the Dead Sea area, and it is interesting to note that the Arabic name for this sea is the “Sea of Lot.” Harland discusses the geological aspects of this area, which are probably unique in the world. In attempting a solution for this problem, he first studies the evidence from the Bible itself, which suggests that the cities were at the southern end of the Dead Sea—this is also indicated by evidence from Greek and Latin authors (Diodorus Siculus, Strabo, Josephus, Tacitus). The mountain Jebel Usdum (“mountain of Sodom”) at the southern end of the west side of the Dead Sea has always been identified as the Pillar of Salt, beginning with Josephus. Reference is especially made to an expedition in 1848 under Lieut. W. F. Lynch, USN, who speaks of a “pillar of salt” on the eastern face of this mountain, and other “pillars” have also been observed. The salt is due, according to geologists, to intrusion from below. It is interesting to note that the top of Jebel Usdum, while 742 feet above the level of the Dead Sea, is nevertheless 550 feet below sea level. Harland then takes up the question of water supply, and shows that a series of small rivers empty into the Dead Sea at its southeastern end, affording several oases, and suggests that the evidence points to a larger water supply in antiquity. What little direct archaeological evidence there is points to the conclusion that the cities must have been at the southeastern embayment of the Dead Sea. In 1924 Albright discovered the site of Bab-edh-Dhra’, to the east of the Lisan peninsula, yielding the ruins of a fortress and a cemetery, and pottery dated at 2300–1900 B.C., but no house sites. There is abundant evidence that the level of the Dead Sea has been, and is, constantly rising. Islands seen by Lieut. Lynch in 1848 have disappeared below the surface, and one of these, which was still in existence in 1892, has since been so deeply submerged that in 1924 it was possible to pass over it in a motor boat in several feet of water. But the most striking

proof of this rising of the level is afforded by the remains of a submerged forest in the southern embayment, making it evident that this embayment was once a plain. In an aerial survey of this region Glueck was able to trace the remains of the Roman road which ran from Moab in a north-westerly direction towards the Lisan, connecting with a western road, enough of which has been discovered to prove that at this point the road forded the Dead Sea. In his final attempt to identify the exact location of the Cities of the Plain, Harland is in essential agreement with Albright. A carefully selected and reasonably complete bibliography follows the article.

**Hebrew, Palmyrene, and Hittite Antiquities.**—R. D. BARNETT publishes, in *BMQ.* xiv, 1940, pp. 31–32, pl. IX *b-d*, three objects recently acquired by the British Museum. The first, an agate scaraboid, has an Egyptian design with a Hebrew inscription, “(belonging) to El-dilleh,” a name comparable to one found in *1 Chr.* xxiv, 18, and elsewhere. The second is a clay plaque, similar to one from Palmyra (*Syria* xiii, p. 264, fig. 1) and to a mould found at Dura. This plaque depicts a male god, perhaps Zeus, and dates in the third century A.D. The third is an exquisite gold miniature figure of a Hittite god, 5 cm. high, probably used as an amulet, as there is a ring on its back. It closely resembles a similar object in the Louvre, and is dated in the fourteenth or thirteenth century B.C.

**Palestinian Art.**—The conquest of Alexander and the triumph of Hellenism appeared to have sounded the death-knell of Oriental art even more than of Oriental religion, for art depends largely on the patronage of the upper classes and these were rapidly and thoroughly converted to Hellenism and insisted on the Hellenization of art. Oriental art was only saved from extinction by the fact that the lower classes to whom the artisans belonged were little affected by Greek culture. Thus, while the rich determined the planning of the monuments of Hellenistic art, local artisans, still deeply steeped in the artistic traditions of the East, determined the actual execution of their decorative details. A close examination of the monuments of this period will reveal many elements derived from the Oriental tradition. In *QDAP.* x, 1942, pp. 105–151, pls. XXII–XXIX, M. AVI-YONAH has brought together a mass of popular works produced in Palestine and Transjordan during the Roman and Byzantine periods which illustrate the truth of the above remarks.

Among these are the Nabataean sculptures of Kh. Tannur, the funerary busts of Beisan, the cult figurines of Beit Nattif, Judaea, various sarcophagi, the Beth She'arim reliefs, synagogue mosaic pavements, etc. Some are shown to be uncontaminated offspring of the Oriental tradition; others are based on Graeco-Roman prototypes, but betray Oriental influences in many details of their execution—both testifying to the persistence of the Oriental undercurrent which was to rise to the surface once more with the Arab conquest. The history of the various Oriental elements is traced both backwards and forwards—a contribution of considerable value to the student of art—and connections with the contemporary art of Syria, Palmyra, Dura-Europos, and Parthia are pointed out. In his first instalment the author deals with representations of human beings, buildings, altars, and boats; a second instalment will deal with animal, plant, and geometric ornament.

**Syria: Jabbul.**—In *PEQ.* Jan.-April, 1942, R. MAXWELL HYSLOP, J. DU PLAT TAYLOR, M. V. SETON WILLIAMS, and J. D'A. WAECHTER publish an Archaeological Survey of the Plain of Jabbul, 1939. Aleppo must have been an important meeting place for the trade routes from the East along the Euphrates Valley, from Homs and Hama to the South, and from Cilicia to the Northwest. In view of the wealth of the tombs at Ur, it seems likely that these routes must have been used to a certain extent early in the third millennium. The silver in the Royal Tombs probably came from Cilicia; some of the gold may have come from the Jeyhan and Seyhan Rivers of the same region. Contacts with the Sumerians, Akkadians, and Assyrians are well known. Aleppo must have become the capital of Yamkhad, within whose borders lay the small state of Mukish, with its capital at Alalakh. On the collapse of Egyptian power, Yarim-Lim became king of Yamkhad, and it is possible that the plain of Jabbul was a part of his dominion. He was an ally of Hammurabi of Babylon and of Zimri-Lim, king of Mari. Yarim-Lim's successor was Hammurabi of Yamkhad, who sent troops to help Hammurabi of Babylon against Rim-Sin and then helped Ishme-Dagan of Assyria against Mari. There was considerable trade, partly because the trade routes were kept open by Hammurabi of Babylon. Between 1700 and 1600 B.C. Aleppo still possessed "great kingship." In ca. 1595 the city, together with Babylon, was sacked

by Mursil I, who apparently wished to smash the Amorite power in Syria. With the expulsion of the Hyksos from Egypt, the Aramaeans were forced northward, and this situation hardly created favorable conditions for international trade. In the Eighteenth Dynasty the Egyptians took a renewed interest in Syria; Alalakh and Aleppo probably paid tribute to Thutmose III. Later, Aleppo associated itself with the king of Hanigalbat. Next, Mitanni regained its power over North Syria. About 1370 B.C. Shubuiluluma sacked the capital of Mitanni and conquered Aleppo and Mukish. The Hittites remained the dominant power in North Syria until they collapsed ca. 1200 B.C. Later Damascus and Aleppo became important Aramaean centers. Assyria was excluded from the trade routes until Shalmaneser III captured Aleppo and Til Barsip. North Syria was reduced to absolute obedience, and Assyria controlled the trade routes. By 720 Aleppo was included in the solid block of Assyrian provinces extending across Syria to the Mediterranean. Finally Aleppo passed into the hands of the Neo-Babylonians.

The authors follow this historical survey with identifications of places, an archaeological survey of the plain of Jabbul, nine plates, and a map showing the archaeological sites between Aleppo and the Euphrates.

**Al-Mina.**—In *AJ.* xxii, 1942, pp. 87-112, SIDNEY SMITH discusses, in the light of the material remains of the eighth to the fourth centuries found on the site, the commercial relations between the Greek mainland and the North Syrian coast. Al-Mina is identified with the Poseideion mentioned by Herodotus, a settlement not to be confused with the Poseideion mentioned by Strabo. Founded by settlers from Corinth before the eighth century, Al-Mina played an important part in the Syrian trade of that city and of its commercial connections until about 580 B.C., when it was destroyed and apparently abandoned as a result of Nebuchadnezzar's seizure of the Syrian coast. Re-established some 50 or 60 years later, in the time of Darius I, apparently under Athenian control, the town remained a center for the distribution of Attic wares until it was finally destroyed under Ptolemy I.

**Palestinian Arab Pottery.**—An important contribution to our knowledge of Arab pottery current in Palestine from the eighth century onwards is made by D. C. BARAMKI, in *QDAP.* x, 1942, pp. 65-74, on the basis of his excavation of the

Umayyad palace at Kh. el Mefjer. The eighth century remains comprise (i) one type of jar, black or red, sometimes painted with white lines; it has coarse ribs, a round base, two ear-shaped handles, and a sharp ridge on the shoulder; (ii) four types of bowls: (a) one flat-based, painted with floral or geometrical designs, sometimes over a white slip, (b) another of a hard, thin metallic ware, burnished, painted, or incised, the paintings being sometimes outlined in black, (c) red or black cylindrical bowls, the sides decorated with geometrical patterns deeply cut; some are painted both inside and out with dark red and blue lines, (d) small bowls with an incised criss-cross pattern; (iii) cooking pots of a coarse dark red ware; (iv) two types of lamps, decorated with geometrical designs in relief and having a groove running down the nozzle. From the Abbasid period come: (i) three types of jars: (a) a red jar with a smooth surface, (b) a smooth, hard, cream-colored ware with incised decoration, (c) a large jar of a greyish rough ware, the rim being decorated with finger impressions; (ii) three types of bowls: (a) one of a thick light greyish or creamy ware, roughly decorated with rouletted bands, (b) another deeply glazed on the inside and either unglazed or with a thin glaze over a white slip on the outside, (c) a coarse sandy ware painted in blue, black and red over a bluish white or creamy background with a thick glassy glaze; (iii) a jug in a creamy-colored thin ware, moulded in three pieces and then stuck together; it is decorated with stylized floral and geometrical patterns; (iv) globular juglets with a long narrow neck; (v) lamps decorated with floral designs, mainly vine-leaves and bunches of grapes. From a third period of occupation of the site, possibly 12th-13th centuries, come (i) three types of jars: (a) one of a thick yellowish creamy ware with three handles, decorated with incised and applied geometrical patterns (barbotine), (b) another of a hard thick ware, with a ring around the bottom of the neck and two ear-shaped handles, (c) a third of a soft greenish-grey ware with slight ribbing and a combed wavy band around the middle; (ii) a very thick globular pot, perhaps a "Greek Fire" bomb; (iii) three types of bowls: (a) a creamy ware with comb-incised decoration and handles, (b) a light grey thick ware decorated with incised bands, (c) glazed bowls decorated with polychrome floral and geometrical motifs; sometimes only the inside is glazed; (iv) cooking pots, jugs and dip-pers; (v) a degenerate form of the Abbasid lamps.

## IRAN

**Excavations at Nishāpūr.**—The entire April, 1942 number of *BMMA*. (xxxvii, 1942, pp. 81-119; 46 figs., and cover illustration) is devoted to an account of the Metropolitan Museum's Iranian expedition, by the excavators, WALTER HAUSER and CHARLES K. WILKINSON, with a brief introduction by M. S. DIMAND. The period under consideration covers two seasons; from July to December, 1938, and from July 1939 to August 1940. The campaigns, particularly the second, were extremely productive, and through the co-operation of the British authorities, all notes, plans, and photographs were brought back to the United States, a duplicate set being left in Iran. The first excavations at Nishāpūr in 1938 were at Teppēh Madraseh ("the mound of the school") and the clearing of a smaller mound, rich in sherds, called "Kanāt Teppēh," as it was riddled with the wells of an aqueduct, or *kanāt*. This latter proved to have been occupied from the early ninth century to the early twelfth century, and to have been the quarter of potters and glass-makers. The houses in all periods were of poor construction, but a tower, a mosque, and a bath-house were found associated with them. The mosque and bath, both small, are described, and photographs of them are published. In the mosque, a brightly painted niche (illustrated) was discovered. The walls of the reception hall of the bath were decorated with painted designs on plaster of human figures and animals, some of them extremely well done. The bath dates in the tenth century. The kilns at Kanāt Teppēh yielded especially interesting glass and pottery. Pottery bottles of the type sometimes called "hand grenades" were very numerous; and their condition and decoration convince the authors that they were intended to hold volatile liquids, such as rose-water or other perfumes. The most interesting object from this site was a beautiful tenth-century bowl, decorated in red and black with elaborate palmette and Kūfic letter designs, of a type made only in Khurāsān and provinces to its east. The rest of the article is devoted to the work at Teppēh Madraseh, which is by no means completed. The ruins of a mosque and a palace were identified; the mosque is the first to be described. It was in occupation from the early ninth century until sometime in the twelfth, and there is evidence of frequent destructions, rebuildings, and repairs, due to the stormy history



of the site in the ninth, eleventh, and twelfth centuries. In the tenth century, under the Sāmānids, the city enjoyed a hundred years of prosperity, while in the Seljūk period, from 1037 till the disastrous earthquake of 1145, it was a center of schools and colleges. The finds from the mosque are mostly of the tenth century and thereafter, and ornamental designs from its walls in plaster and brick are illustrated, the brick ornamentation belonging in the eleventh century. The fundamental plan of the mosque remained unchanged, but frequent additions were made to its façade and decoration. Of the carved plaster and brick fragments a large number are in New York, the rest in Teheran. Many of them bear Kūfic inscriptions. The palace buildings show only two periods of construction, dating in the ninth and tenth centuries. It was already in ruins in the eleventh, while the mosque was maintained till its destruction in the earthquake. A description of the plan of the palace is given. On arcaded façades, dating from the ninth century, were fine plaster carvings (illustrated), similar to work of the same period at Sāmarrā. A small circular domed room in the residential part of the palace was decorated with false doors, and a lattice pattern in high relief in red, with false nails in green, also dating from the early ninth century. A rectangular room nearby yielded an extraordinary painted dado, which had in later times been covered with white plaster. Specimens of this dado are in New York. Numerous *mīhrābs* were found in the palace, one of which is illustrated. Of the other objects found, the first to be described is a series of moulds or matrices of clay, cut in intricate patterns of great delicacy. All are broken and incomplete. The one selected for illustration represents the myth of the Simurgh (not unlike the story of Ganymede), which is told in the article. Much glass was found, in yellow, blue, green and white, blown or cast, and in almost every known technique of decoration. Of these objects three, a blue dish with incised design and a jug (in New York) and a carafe (in Teheran) are selected for publication. The jug is decorated with animal designs. Of the objects in metal, the most interesting is an amulet case of silver gilt, inscribed with a quotation from the Koran in Kūfic characters, dating late in the ninth century. An enormous amount of pottery, in a great variety of shapes, most of it locally made for domestic purposes, but also including many fine specimens, was found, dating in the ninth and tenth centuries. Much has been previously

written about Chinese influence on Persian pottery, but in these campaigns, for the first time on record, sherds of T'ang ware in both pottery and celadon were discovered, which had reached Nishāpūr through Turkestan. Several new types of local ware are described, belonging late in the ninth century or early in the tenth, and examples (in New York) are illustrated. Of already known types, some noteworthy examples are preserved, the finest being a large ninth-century glazed bowl, with a polychrome design of a mounted hunter, of post-Sasanian type, but strongly influenced by that art. It is of a ware peculiar to Nishāpūr, and is in Teheran. In New York is another bowl of this same ware, found in this area, with a design of a warrior. Finally a small excavation in a vineyard in 1937, not previously reported, revealed a series of wall-paintings showing hunting scenes, displaying strong Sasanian characteristics, although later. One result of these excavations has been to collect material that will be of great help in disclosing the history of painting in Irān from the late eighth to the twelfth century. The most striking fact which is revealed is the strength and persistence of Sasanian tradition.

**Dinar of Tutush.**—Under the title, "Tutush, Ephemeral Sultan," GEORGE C. MILES publishes, in *Studies in the History of Culture*, 1942 (presented to Waldo G. Leland) pp. 98–102 (pl.), a gold dinar of this Sultan, now in the American Numismatic Society, struck at Rayy in Iran in the year of the Hegira 487 (1094 A.D.). This is a great rarity, being the only coin of this ruler in existence. A brief account of his life is given; he was born in 1066, reigned for less than a year, and was killed in battle in 1095, before he was thirty years old.

## ANATOLIA

**Excavations at Alaca Höyük, 1940.**—HAMIT KOŞAY continues the series of preliminary reports on the excavation of Alaca Höyük in central Anatolia (*Belleten* v, 1941, pp. 1–16 (Turkish and French), pls. I–XI). The sixth annual campaign, which lasted from July to November 1940, was devoted chiefly to examining the Hittite settlements. It became clear that the Gate of the Sphinxes belonged to the latest of these and that it had never been completed. Some of the building blocks, which had been carried off to the village in modern times, could be identified and have been replaced. A very large temple, earlier than the



gate, but belonging still to the late Hittite Empire, lay roughly opposite the main entrance. In the same area but nearer the wall Dr. Koşay found parts of a middle Hittite temple, associated with a layer where in 1939 the excavators had found storage jars marked with hieroglyphics. Soundings, made in spaces where it was possible to dig without destroying important walls of later buildings, revealed parts of a temple of the early Hittite period, just above the deep layer of ashes which marks the top of the Copper Age stratum (see the reports in *Belleten* i, 1937, pp. 210-234, 525-542).

A few of the most interesting objects recovered are described and illustrated. They include a clay vessel in the form of a ram's head, a lentoid flask, spindle whorls of many types, bronze sickles, and a gold ring and terracotta seal bearing hieroglyphic symbols. A note on these inscriptions is contributed by H. G. GÜTERBOCK.

**Arzawa and the Lugga Lands.**—Basing his investigation on the evidence of the *Annals of Mursil* and the known facts of Anatolian geography, JOHN GARSTANG examines the position and historical importance of the kingdom of Arzawa in the fourteenth and thirteenth centuries B.C. (*Belleten* v, 1941, pp. 17-46 (Turkish and English), pls. XII-XIII). He concludes that "central Arzawa was permanently situated in Pisidia and the adjacent coastlands of Pamphylia and Lycia, and greater Arzawa, which in the time of Mursil included the confederated states of Hapalla, Mira and the Seha River, reached in the north as far as Afiun Karahissar and in the south ranged along the coast from near the Calycadnus River to the Xanthus or the Indus." The second part of the article deals with Mursil's campaigns in Arzawa, which were necessitated by various local incidents but reflect ultimately the growing pressure from the combination of hereditary rivals of the Hittites and Achaean newcomers in the West. The campaigns were temporarily successful, and for a time the Royal Road to the West, vital in the maintenance of Hittite supremacy, was kept open.

## GREECE

### GENERAL AND MISCELLANEOUS

#### Correlation of Greek Archaeology and History.

—The recent volume, *Studies in the History of Culture*, 1942 (presented to Waldo G. Leland), contains (pp. 185-216) a very important article by WILLIAM BELL DINSMOOR on this subject.

Statements made by Herodotus, Thucydides, Aristotle and Plutarch are examined and tested for their accuracy by archaeological evidence. The period under investigation begins in the year 521 B.C., and the latest date included is 447 B.C. This study has involved a re-examination of the archaeological material, and significant is Dinsmoor's dating of the Athenian Treasury at Delphi as before Marathon, around 507. In the majority of cases where Herodotus is concerned, the evidence of archaeology tends to vindicate his statements as against his detractors. After careful investigation of literary evidence, Dinsmoor dates the Athenian Colonnade at Delphi in 498 or 497, to commemorate a naval victory over the Persians in the Pamphylian Sea—the first time an Athenian fleet met, and conquered, a foreign foe. Shortly thereafter, on the defeat at Ephesus, Athens elected an isolationist archon, Hipparchus, son of Charmus (496-495). To this period belongs the existing inscription on the altar of Apollo Pythius at Athens—the altar itself is dated in the Peisistratid period, about 522-521. To the period after Marathon belongs the long pedestal along the south flank of the Athenian Treasury at Delphi, on which were set up the spoils from that battle. The epigram of Simonides on the Marathonian cenotaph at Athens, already known from literature, has been found in fragments, one of which was discovered in the Agora excavations, and on the same stones is the Aeschylean epigram, written in later characters. To the period between 490 and 480 Dinsmoor dates the older Parthenon, which he believes was built on the site of the earlier Hekatompedon, and had not been completed at the time of Salamis. He believes that it was begun in the archonship of Aristides, in 489-88. To this same period belongs the Old Propylon. The so-called "Hekatompedon inscription" is dated exactly in 485-84, and is cut by the same hand as the epigram of Simonides. For the defense and ultimate capture of the Acropolis by the Persians in 480, chance archaeological evidence has confirmed the statements of Herodotus regarding the wooden walls erected by the Athenian garrison, while abundant proof exists of its destruction by fire, as of the similar destruction of the lower city by Mardonius in 479. That the "oath of Plataea," taken, according to Thucydides, by the Athenian youths before the battle, was observed to the letter, until its abrogation was proposed by Pericles thirty years later, is attested by the lack of major architectural evidence, until the great

constructions of the Parthenon and the Propylaea were undertaken.

**Modern Parallel to Ancient Military Fieldcraft.**—EDMUND G. BERRY, in *CJ.* xxxvii, pp. 535-536, points out that the practice of range estimation, known today as the "key-range method," i.e., judging the distance of the target by calling on a number of men to estimate the range, and taking the average, was exactly that used by the Plataeans, in their successful sortie during the siege of 428-27 B.C. (Thucydides iii, 20) when a number of the party counted the rows of bricks in the enemy's besieging wall, computing the average, and thus scaling ladders were built that would fit the height of the wall, and make their sortie successful. This is in essential agreement with the "key-range method" used in fire-control today.

**Aigaleos-Parnes Wall.**—In *Hesperia* xi, 1942, pp. 193-211, S. Dow describes the 4200-meter wall which was built to defend the wide pass between Mts. Aigaleos and Parnes. The longest extant stretch of field-works in Greece, it has recently been pronounced the oldest (eighth century B.C., the sole fortification assigned to that or the following century). The style of the construction is Lesbian and hence in any case should not be after ca. 480 B.C., according to Scranton's chronology of styles (*Greek Walls*). The wall was obviously built to defend the Attic plain against invasion from Eleusis; ergo, it belongs either in a period when Eleusis was independent, or when an enemy from outside Attica was marching on Athens via Eleusis. No really suitable occasion is known in the period after ca. 490; the historical evidence supports the stylistic. The hypothesis of a very early date was based mainly on the assumption that the plan of the wall betrays inexperience. This argument is shown to be false by study of the plan, supported by a map, diagrams, and photographs. The plan is, in fact, expert, as is indicated by the general location, by the jogs and the sally-ports, and by the supporting watch- and signal-towers; indeed, it anticipates in simple form Vauban's invention of the *trace à tenaille*. Since it was built to be defended against hoplites by a large force of hoplites, an extremely early date (eighth or seventh century) is unlikely, and in fact no suitable occasion is known or is likely prior to the death of Peisistratus. Seeking a suitable occasion, therefore, in the years 528-490 B.C., Dow points out that the only one in that period, and the only known suitable occasion in any period, is the invasion by Cleomenes and

Demaratus in 506 (Herodotus v, 74-75): the Peloponnesian host marched to Eleusis and took it, and the Athenians took up a position to block them—that is, according to the suggestion made in the article, the Athenians built the Aigaleos-Parnes wall. Herodotus goes on to say that the Peloponnesian forces disbanded in disagreement, and the suggestion is that the Athenian wall had discouraged them.

**Charioteer Earring in Boston.**—In *BMFA.* xl, 1942, pp. 50-54 (9 figs.) BERTA SEGALL reexamines this well-known jewel, perhaps the best known piece of Greek jewelry in existence. The earring belongs in a group which includes other earrings of a Siren, and of Ganymede, both in New York, and one of a winged female figure in the Benaki Museum in Athens. All were at one time believed to come from one workshop, but this is denied by the writer, who sees a different hand at work in each specimen. They all belong in the second half of the fourth century B.C., and the Boston piece seems to be the earliest. The ornament over the heads of all these earrings, which is of the same general pattern, occurs widely in fourth-century art, especially in Southern Italy. To explain its significance, attention is called to a gold pendant from Dodona, now in Berlin, where it can only stand for the Goddess of the Nether World, and the Goddess is shown herself on a similar ornament on a sarcophagus from Southern Russia, of the third century. On the basis of this ornament, the winged charioteer of the Boston earring is identified as Psyche, driving to the world beyond, under the protection of the Nether Goddess. This whole group of earrings "represent images of souls who are carried aloft, or figures who live in, and characterize, the world beyond."

**A Hellenistic Deposit at Corinth.**—In *Hesperia* xi, 1942, pp. 105-127, G. DAVIDSON publishes a closed deposit chiefly of some 50 terracotta figurines and 54 coins found at the eastern end of the South Stoa. The date is not later than the third quarter of the third century B.C. The fabric is local, not that of the Potter's Quarter. The types are known earlier, but there are unusual features. The subjects include banqueting scenes, riders, snake-and-helmet stelae, standing females with offerings, an actor carrying a tragic mask (a type unique anywhere), and votive shields, some of which bear paintings. Miss Davidson conjectures that the whole deposit, though the figurines may have been intended for cult use, was the contents of a shop. For theories concerning

the cult involved, see Broneer, *ibid.*, pp. 128-161, summarized *infra*.

**Hero Cults in the Corinthian Agora.**—In *Hesperia* xi, 1942, pp. 128-161, O. BRONEER starts from the figurines published by Miss Davidson, *ibid.*, pp. 105-127 (summary, *supra*). He also publishes a group of almost identical, but burned terracotta figurines from a catch-basin (p. 145 and fig. 7), restores a hero relief with a horse (p. 131), and mentions an unpublished dedication at Corinth inscribed [Ζ]ευξίππῳ (p. 136; exact place of finding not given). To these objects and others he relates a chthonian shrine and cemetery, the race track, wagon ruts, columnar monument, and two fountains, all in the Agora. The cult involved, to judge from its apparent sepulchral character and possibly also its equine element, is the cult of a hero or a pair of heroes carried on in the Agora throughout much of the Greek and Roman periods (summary of the whole, pp. 160-161). There is a connection evidently with the worship of Poseidon Hippios and Athena Hippiia.

#### SCULPTURE

**Lost Sculptured Horse.**—The marble horse's head, mysteriously missing since its discovery by the American excavators at Sardis on the last day of excavation in 1914, has been found in the Walters Art Gallery in Baltimore. It was purchased by Mr. Walters in Egypt in 1929, and was said by the dealer to have been found in Egypt. Fortunately, pictures were taken of the head on the day of its original discovery, and comparison leaves no doubt that the Walters and Sardis horses are the same. DOROTHY KENT HILL, in *The Art Bulletin* xxiv, 1942, pp. 155-159, suggests that the head was never attached to the body of a horse, but that it probably rested on a base beside a statue of one of the Dioscuri. The neck "has no modeling below the creases at the juncture with the head" and must, consequently, have been considered unimportant. A fragment of sculpture published by the Sardis excavators as a helmeted female head is much more plausibly identified by Miss Hill as a male head wearing a *pilos*, and so from a figure of either Castor or Pollux. It is not impossible that this head and the horse's head might be from the same group, a sculptural work of the Hellenistic period.

#### VASES

**Thyestes and Pelopeia.**—The myth given by Claudian (*In Rufinum* i, 83-84) that Thyestes

was instigated by a Fury to commit incest with his daughter Pelopeia, while unsupported by other literary evidence, is believed by HARRY L. LEVY (*TAPA* lxxii, 1941, pp. 237-244; pl.) to be confirmed by an Apulian vase in the Vatican (Millin, *Peintures des Vases Antiques*, 1813, 43; Millin-Reinach, pp. 104-105), where the two central figures are identified by him as Thyestes and Pelopeia, while above them is a Fury, with snake locks, scourge, and torch, who is the instigator of the crime.

#### INSCRIPTIONS

**Two Families of Athenian Physicians.**—In the *Bulletin of the History of Medicine* xii, 1942, pp. 18-26, S. Dow dates to ca. 360-340 B.C. the hitherto perplexing dedication IG, ii<sup>2</sup> 4219 made by six Athenian physicians, and clarifies the family relations of Dieuches and Mnesitheos, two of the famous medical authorities of antiquity. In each of these families the medical art is shown to have been transmitted through several generations. This finding affords the first explicit proof that the injunction of the Oath of Hippocrates by which doctors swore to teach the profession to their sons was obeyed at least in some instances. Another pupil of the famous Dieuches, Noumenios of Herakleia, is shown to have flourished in the second half of the third century B.C. The development of medical interests in the phase which succeeded the second great medical period, that of Aristotle and his follower Diokles of Carystus, is touched upon.

#### NUMISMATICS

**Ionian.**—Kolophon and its coinage is made the subject of a study by J. G. MILNE in *N.M.* 96. In the face of difficulties due to war conditions, Milne has assembled data from most of the important collections of Europe and the United States to form an excellent corpus of coins of the city. Whatever omissions there may be are not serious enough to affect his general conclusions. Throughout the study of the Greek coinage, effort is made to tie up important changes in the coinage with the historical vicissitudes of the city. There is prefixed an outline of the history of Kolophon, the city, from its beginnings to its disappearance from historical importance under the Empire. The series of Roman coins ceases with Gallienus and his family in the third century.

**Coins of Corinth.**—In *Acta A.* xii, 1941, pp. 53-65 (25 figs.) W. SCHWABACHER of Copen-

hagen has an important article for numismatists, entitled "Corinthian Contributions from Copenhagen." This study is a by-product of the preparation of the old collection of Greek coins in the Royal Coin and Medal Collection at Copenhagen. To quote the author, "not a few pieces appeared which may throw new light upon numerous aspects of ancient Greek numismatics." Several early Corinthian pieces are of interest to archaeologists, "partly on account of the artistic beauty of their representations, and partly because of their general archaeological or historical importance."

To take an instance, a Corinthian coin with a helmeted head on the obverse and a large T in the incuse square on the reverse had previously been catalogued as a coin of Tegea, but a study of a recent hoard shows that this is not a Tegean, but a Corinthian coin, with the T standing for "Trihemiobol." It is a one and a half obol piece and becomes a "missing link" in the known series containing hemiobols and diobols. Also the date for the change from one relief and incuse square on coins of Corinth to double-relief coinage at this city is now brought down ca. 20 years to ca. 540 or 530 B.C. Interesting comparisons are made between the Athena on the Corinthian coins and the heads of the Acropolis korai and a better chronology is being established for the coins. Other Attic sculptures are adduced in comparisons and one engraver's style is thought to be influenced by Myron's works. Another group of Corinthian coins preserve the memory of important archaic sculptures lost during the sack of Mummius in 146. The Copenhagen collection possesses the sixth specimen of Corinthian gold coins and it is illustrated and described in this article. It is a hemiobol with Pegasos and a trident on the obverse and reverse respectively and weighs 0.30 g. The five previously known gold specimens weigh between 0.60 and 0.45 g. Only a few of the interesting examples and conclusions given in this article have been cited here, but they should show that the article by Dr. Schwabacher must be used to supplement the recent catalogues and studies of Corinthian coinage.

**Greek Coins in British Museum.**—J. ALLAN reports the gift to the British Museum of ninety-nine Greek coins from Mr. E. S. G. Robertson, including a fine tetradrachm of Acanthus, of the end of the sixth century B.C.; two tetradrachms of Athens, struck for Macedonia, from the famous Calianra hoard, showing Silenus on a donkey's

back, dating in the period of the Peloponnesian War; and three Elean drachms of the end of the third century B.C. By purchase the Museum has obtained a unique silver stater of Dicaea in Macedonia, of the early fifth century B.C., showing on the obverse a cow licking its hind leg, with a bird perched on its back, and on the reverse a cuttlefish and the name of the city. Two very rare gold staters were also purchased, one from Olbia, the other from Chersonesos, the former belonging in the first century A.D., the latter exactly dated in A.D. 107. Their interest is due to the fact that, although in Roman times coinage of gold was jealously reserved for the state, nevertheless in such outlying districts it was tacitly permitted to local authorities (*BMQ.* xiv, 1940, pp. 33-34, pl. x).

**Greek and Roman Coins.**—In 1935 a valuable collection of 427 Greek and 714 Roman coins was presented to the American Numismatic Society by the wife and son of the late Munroe Endicott. In *NNM* 97, the most significant of these coins are published by SAWYER MCA. MOSSEY, with photographs. The Roman part of the collection is largely composed of what was once the "Catacombs" hoard. Mr. Endicott acquired this hoard by the purchase of separate lots, sold the duplicates, and kept a careful record of his acquisitions and sales of duplicates over a long period. From his notebook it is possible to reconstruct the hoard, which Mr. Mossey has accomplished with marked success.

Outstanding among the Greek coins is a tetradrachm of Alexander III which bears in minute letters the name of Nicocles, who was Prince of Paphos, on the island of Cyprus. To allow his name to appear on a coin so soon after the death of Alexander was a remarkable piece of boldness on the part of Nicocles, not attempted by his confederates among the Diadochi until fifteen years later.

## ROME

### GENERAL AND MISCELLANEOUS

**Etruscan Architectural Terracottas.**—In an article in *Acta A.* xii, 1941, pp. 66-78 (11 figs.) P. J. RIIS adds important data to the leading works dealing with this subject: Mrs. Van Buren, *Figurative Terra-Cotta Revetments in Etruria and Latium*; André, *Architectural Terracottas from Etrusco-Italic Temples*; and Riis, *Tyrrhenika, an Archaeological Study of the Etruscan Sculpture in the Archaic and Classical Periods*. This "supplement" or study is divided into the following sections: I. On the Campanian Architectural



Terracottas; II. On the Chronology of Etruscan Architectural Terracottas; III. On the Revetment Plaques from Velettri. The illustrations are very clear. (Five are by Dr. S. B. Luce.) One interesting feature is figure 7, a "Chronological table of the archaic and classical Etruscan antefixes," covering the period from ca. 625 to 300 B.C. Some unpublished fragments of revetment plaques from Velettri, now in Copenhagen, are presented for the first time. These had been acquired by the Danish antiquarian, Bishop F. Münter (1761-1830) and part had been deposited in the Ny Carlsberg Glyptotek, while other pieces are in the National Museum and in the episcopal residence. Some of the published pieces of this collection had been insufficiently described and inadequately illustrated. Hence, especially useful is the detailed description contained in Münter's Diary for May 19th, 1785, which Dr. Riis has reprinted in this article. The author hopes that a new restoration of the Velettri reliefs will be undertaken in the Naples Museum by means of casts from Velettri, Copenhagen, and other collections.

**Rome and "Road of Hercules."**—In *TAPA*. lxxii, 1941, pp. 59-69, NORMAN J. DEWITT summarizes the evidence for travel between Rome and Gaul. The route across Southern Gaul over the Little St. Bernard, used by Hannibal in crossing the Alps, was associated with Herakles' return from capturing the Cattle of Geryon. The coastal route was not in favor, as it was unsafe, owing to the mountainous terrain between Monaco and Nice. Armies bound for Spain were embarked at Genoa or Vada for the mouth of the Rhone, and went by land the rest of the way. Caesar's conquest of Gaul, which arose out of the necessity of rendering the Alpine passes safe for military communication, put an end to the insecurity of the Alpine routes which had been most unsafe up to his time, and were only rendered completely secure under Augustus.

**Roman Antiquities in Denmark.**—In *Acta A.* xi, 1940, pp. 212-25; figs. 1-3 and a table, H. NORLING-CHRISTENSEN of Copenhagen describes a grave-find of Roman bronzes and glass vessels, brought to light by workmen digging gravel at Stenlille in Denmark. The objects and vases were of Roman manufacture and provenance and seem to have been made about the middle of the second century A.D. Apart from their intrinsic artistic value, this find is of interest because it represents imports into Denmark during the Roman Imperial Period.

## SCULPTURE

**Nemi.**—FREDERIK POULSEN in *Acta A.* xii, 1941, pp. 1-52; 54 figures, 3 plates, discusses: I. The Temple of Diana; II. Sculptures Found in Diana's Sanctuary; and III. The Votive Chamber at Nemi. The temple of Diana, near the north bank of Lake Nemi in the valley of Aricia, was an old sanctuary, famed for its wealth and votive offerings. As early as the seventeenth century the site was explored, but not until 1789-1791 were large-scale excavations carried out and these by the Spanish Cardinal Despuig. He transferred the unearthed sculptures to the family estate at Raxa on Mallorca, where they remained until 1898, when they were acquired by the Ny Carlsberg Glyptotek of Copenhagen.

In 1885-1886, the British ambassador in Rome, Lord Savile, dug at the site and shared the finds with the owner of the land, Prince Orsini. Lord Savile's share was eventually given to Nottingham, while the prince's went to his palace at Nemi. Prince Orsini continued the excavations and disposed of his finds to Carl Jacobsen of Copenhagen who united them with the Nemi collection acquired from Raxa. Thus Copenhagen has become the most important center for a study of the art works from the Temple of Diana at Nemi. Next in importance comes the Museum of Art in Nottingham. Most of the other objects from this site are in the Terme Museum and in the Villa Giulia.

Unfortunately, all these excavations had been treasure-hunts rather than scientific excavations and hence stratigraphic and topographical data are almost entirely lacking. Nevertheless, the objects at Copenhagen and Nottingham are well worth study, as Poulsen has demonstrated.

The objects found within the temenos extend in date from the sixth century B.C. far into Roman times. Within this Artemisium were probably temples to the Egyptian goddesses Isis and Bubastis, but the chief deity worshipped was always Diana. This is well attested by inscriptions and numerous and varied votive offerings of many periods. A few architectural terracottas which came from the early and later temples of Diana are described and illustrated. These include antefixes and statuettes which seem to have formed parts of the frieze.

Sculptures found in the sanctuary of Diana include a marble head of "Julius Caesar" (really a portrait of an unknown elderly Roman); a



colossal head of Diana of the Early Empire, which may have been a cult statue; a head of an athlete; several marble votive vases; the large statue of Nerva and also one of Tiberius; and finally a head of Germanicus. All of these, except the "Caesar" head of Nottingham, are in the Ny-Carlsberg Glyptotek and are illustrated and described. Most of them came from an exedra to the north of the temple.

Of especial interest is III: "The Votive Chamber at Nemi" (pp. 20-52), with its four herms and two statues and other fragments of sculpture and inscribed bases. This votive chamber is called an *ala* in an inscription which, inscribed in mosaic in the floor, records that "M. Servilius Quartus cleared this room (*ala*) and dedicated to Diana that which is exhibited herein." The *ala* was built into the north wall of the temenos and was open to the south, being distyle *in antis*. On either side were two herms and against the rear or north wall were the two statues. These statues and portrait-herms are fully described and well illustrated. Comparative studies point to a date in the reigns of Tiberius or Claudius, that is, in the first half of the first century A.D.

Of great interest is the herm of Fundilia Rufa, the patroness of the actor Doctus, who dedicated the herm to her. This herm might be called a quadrangular statue, with arms (now lost) separately affixed, for the drapery is sculptured on the four sides and the feet protrude. The individuality of the face and coiffure make this statue-herm in Nottingham a masterpiece of Roman portraiture. It may be dated in the time of Tiberius.

Next to Fundilia, against the left wall, stood a herm with the portrait bust of L. Aninius Rufus, dedicated by his wife Prima, according to the inscription. This Aninius was a Q(uaestor) or Q(uattuorvir) of Aricia. Against the rear wall stood the statues of Fundilia Rufa and of Fundilius Doctus. The former has the same features strikingly shown on her herm and in style may be dated in the reign of Tiberius. Fragments of an inscribed plinth indicate that a third monument of Fundilia stood in this room. The other statue represents C. Fundilius Doctus Apollinis parasit(us), the actor, whose success is attested by the fact that he dedicated two or three statues to his patroness here and one to himself. Poulsen regards this statue as the "most beautiful of all the Roman portrait statues in the Ny Carlsberg Glyptotek." It, too, may be ascribed to the time of Tiberius.

At Nottingham is the shaft (headless) of a herm inscribed with the name of L. Faenius Faustus, an actor of fourth parts. The presence of a third actor represented in sculpture in this *ala* is shown by the head (No. 642) at the Ny Carlsberg. Against the right wall stood two herms, that of a freed-woman, Staia Quinta Lucii liberta, and that of the rhetor, Q. Hostius Capito. The former reveals no outstanding personality, but on stylistic grounds the herm of Staia may be dated in the reign of Claudius or of Tiberius. The herm of Hostius Capito with his closely cropped hair is also interesting because it shows that by the time of Tiberius not only freedmen but citizens served as rhetors. As the actor, so the rhetor was becoming a reputable calling in the Early Empire.

Two other heads from this *ala* deserve mention: one of a younger woman may be dated in the reign of Claudius on the basis of the coiffure and the other of a more mature woman in the reign of Tiberius. Both are in the Ny Carlsberg museum and are illustrated. In Nottingham are two inscribed statue bases which seem to have been found in this same votive room.

Artistically, the portraits from the Nemi *ala* are of high rank. While stylistically homogeneous and from the first half of the first century A.D., they are of varied rank and character: a patroness, an official, three actors and a rhetor. All the sculptures seem to have been dedicated to Diana. This portrait-gallery in the north wall of the temenos of Diana is quite unique in character. The student of Roman portraiture cannot ignore the Nemi sculptures at Nottingham and in the Ny Carlsberg Glyptothek.

#### POTTERY

Roman Relief Bowls from Corinth.—In *Hesperia* xi, 1942, pp. 162-192, D. C. SPITZER publishes the principal 45 bowls with relief decoration which have been found at Corinth. The finding of a mould, combined with other arguments, establish Corinth as the place of manufacture. The shape is that of a pyxis. The prototypes were of metal. The glaze is a dull red-orange. The decoration on each bowl is a series of scenes, each scene being applied by a separate matrix. The subjects fall into four groups: the labors of Herakles, Greeks fighting barbarians, Dionysiac scenes, and hunting scenes. Impressionism is the distinctive feature of the style. At once crude and elaborate, the ware displays the taste of Corinth in the period when it was made, roughly A.D. 150-300.

## INSCRIPTIONS

**Latin Inscription from Trans-Jordan.**—A Latin inscription referring to the building of a reservoir to meet the needs of a Roman garrison on the Syrian *limes* is published by J. H. ILLIFFE in *QDAP.* x, 1942, pp. 62-64. Its date is 334/5 A.D.

## MEDIAEVAL

**Saxon Sculpture.**—In *BMQ.* xiv, 1940, pp. 35-36, pls. XI, XII, T. D. KENDRICK publishes two Saxon gravestones recently given to the British Museum. Both are fragmentary, and their provenance is said to be Chester. Both are decorated with animal motives, interlace, and scroll patterns. They show obvious influence of West Saxon art, and a date not later than 950 A.D. is suggested.

**Mediaeval Campanian Animal Sculpture.**—W. F. VOLBACH discusses the Eastern origin of the animal motives in Campanian sculpture from the ninth to the thirteenth centuries in *The Art Bulletin* xxiv, 1942, pp. 172-180. Patterns and designs were transmitted from the East chiefly on silk textiles, also on ivories and metal-work. Modifications of oriental prototypes introduced from Palermo and Apulia also influenced Campanian artists. On some of the reliefs we find that the sculptor has used the complete cycle of motives found on an eastern textile: for example, the choir-screen of S. Aspreno in Naples, and the throne of Montevergine. The individual animal types found in Campanian sculpture all suggest eastern origins. "Influences from antique art persist only in the representation of the human figure." Characteristic animal types are the winged-horse, the griffin and the hippocamp, common motives in Sassanian and Byzantine art. "A thorough study of Campanian sculpture reveals that the local artists gradually modified their models both technically and stylistically . . . until they had completely Italianized them." Oriental influence disappears entirely with the development of Gothic art about the end of the thirteenth century.

**Vatican Palace.**—In a note in the *New York Herald-Tribune* for September 6, 1942, there is a brief announcement that archaeological evidence has been found to set the date of the beginning of the Vatican Palace in the thirteenth century, rather than the fifteenth, as had been previously supposed.

## RENAISSANCE

**Sebastiano Serlio.**—A detailed and delightful account of the life and works of Sebastiano Serlio, an architect of the early sixteenth century, by WILLIAM BELL DINSMOOR, appears in *The Art Bulletin* xxiv, 1942, pp. 55-154 (two parts). Serlio was born in Bologna in 1475. He studied architecture in Rome with Baldassare Peruzzi. Peruzzi died in 1536 and left behind him much unpublished material, which Serlio undoubtedly made use of, but "in a spirit of piety rather than of plagiarism." Serlio proposed to devote his life to "publishing for the first time a coordinated scheme of architectural education, in the form of a series of illustrated volumes." Manuscripts written prior to the introduction of printing in 1464 had, of course, a limited circulation, and were not illustrated. The first architectural book printed in Italy, in 1485, was Leone Battista Alberti's *De re aedificatoria*, but it also lacked pictures. The first to be illustrated was the *Poliphili hypnerotomachia*, "a Vitruvian commentary in the form of a novel."

Serlio fled from Rome in 1527 at the time of its sack and went to Venice. In 1528 the engraver Agostino de Musi made up nine plates of Serlio's drawings of the Doric, Ionic and Corinthian orders. "The emphasis on illustration, already apparent in these early engravings, was the ideal which guided Serlio in the preparation of his published works. It was a new conception in architectural writing . . . an innovation that we owe to him. Instead of composing a literary essay accompanied by illustrations, he planned to make the illustrations the main body of the work, each to be provided with a commentary . . . the ideal being one page of text opposite or accompanying each drawing."

Serlio proposed, as he himself states in the preface of the first published book, to write a series of seven books on the following general subjects: 1) Geometry; 2) Perspective; 3) the Plan, Elevation and Perspective of well-known buildings in Rome, Italy and elsewhere; 4) the Five Orders; 5) Temples; 6) Habitations; 7) Accidents, or unusual problems confronting architects. The first to appear was Book IV, in 1537. It consisted of 76 folios with 117 pages of illustrations. Book III followed in 1540. This latter volume was dedicated to Francis I of France, from whom Serlio hoped to obtain financial assistance. In 1541, at the age of sixty-six, he moved with his family to

France, and settled at Fontainebleau, where he did some engraving, continued his writing, and practised his profession as an architect. Books I and II were published as a single volume in 1545, and Book V in 1547. In these three books French translations by Jean Martin accompanied the Italian texts. 1547 was also marked by the death of his patron Francis I and the end of royal favor.

In 1550 Serlio moved to Lyons, where the following year he published a book of engravings of fifty doorways. It was called the "Extraordinary Book" and was never intended as one of the series. This fact was not universally realized, however, with resultant confusion. With only five of his seven books published Serlio died in 1553. In 1545, however, he had stated that Book VII was almost completed, and that Book VI was finished, or at least beyond revision. Book VII was finally published in 1575 by Jacopo Strada of Mantua, an Italian antiquarian who had purchased the manuscript from Serlio in 1550. Strada also purchased from Serlio the manuscript of a book on military architecture, but it was never published. A manuscript of Book VII is now in the Kunsthistorisches Museum in Vienna, and one of the Book of military architecture was identified in the possession of the National Library in Munich. Neither of these manuscripts exactly fits the description given by Strada of his purchases. It appears that Serlio made a final revision of his manuscripts, and those that are preserved are the original versions. The revised copies would hardly have withstood the wear and tear of publication.

In early editions of Serlio's works the "Extraordinary Book" on Doorways was added as an appendix, and at his death editors changed the preface to conform with the finished five books. Later editors again changed the projected series to six books, and called the Doorways the sixth book. Recent discoveries, however, have proved that Serlio kept his promise and completed his life work. Although Book VI still remains to be published, two manuscripts of it have been found, the original and revised versions. The original was acquired by the Avery Architectural Library of Columbia University in 1920, and the revised version has been in Munich for centuries, though it was not entirely identified until 1924. Dinsmoor discusses these two manuscripts in detail. It is possible from a study of the watermarks of the papers which Serlio used, and a comparison with those used in his other preserved manuscripts, to arrange the pages of Book VI in their proper order,

and to determine exactly when and where it was written. The technical descriptions and deductions are too detailed to be summarized here.

In conclusion Dinsmoor points out the light thrown by Book VI on three of many problems connected with Serlio. Serlio did design the "Grand Ferrara" at Fontainebleau, and the Chateau of Ancy-le-Franc, and he also worked on a plan for the Louvre, many details of which were incorporated in the final plan.

### AMERICAN

**Town-Planning in Mexico.**—The Spaniards who colonized Mexico in the sixteenth century founded many towns, either for strategic purposes or as trading posts. GEORGE KUBLER points out, in *The Art Bulletin* xxiv, 1942, pp. 160-171, that the plans of these cities were based on "European urban theory and practice" with which the colonists were familiar. The regular gridiron plan, though a dominant characteristic, is not unusual, having been used in all countries in almost all periods. "Extremely unusual," however, "was the Mexican habit of fortifying the church, while leaving the city open to attack." This custom was undoubtedly the contribution of the immigrant mendicants, Franciscans, Dominicans and Augustinians. Similar fortified churches in unwallied towns are found in southwestern France, where these mendicant orders were very powerful in the thirteenth century. Similarity in church architecture is also to be noted.

Another important characteristic of Mexican city-plans is "the rectangular plaza, located at the central intersection of the main axes, framed by colonnades and public buildings, and constituting a monumental urban center." The source of this plaza is to be found in Italian theory of the fifteenth and sixteenth centuries, such as that expounded by Battista Alberti. It was not possible to put these new theories into practice in the old and long-established European towns, but there was ample opportunity in Mexico where completely new towns were to be laid out.

"The urban foundations of the sixteenth century in Mexico are relevant not only to the history of Spanish colonization, but to the history of urban forms in general. It may well be that the Mexican program constitutes one of the most important chapters of civic art in occidental history. It enjoyed dimensions not often encountered in Europe: the dimensions of free experiment, surging expansion, and unlimited resources. There is

nothing to compare with it either after the Roman Empire or before industrial creations of the nineteenth century."

### FAR EAST

**Origin of Far Eastern Civilizations.**—In a new series, entitled *War Background Studies*, published by the Smithsonian Institution, Washington, No. 1, 1942 is devoted to an article by CARL WHITING BISHOP on this subject. Parts, at least, of this region have been occupied since early Pleistocene times by various forms of man including one of the most primitive, *Sinanthropus pekinensis*, whose age is variously estimated at from 250,000 to 1,000,000 years. Traces of men of later Old Stone Age times have also been found in China and on the Mongolian border as well. In less remote prehistoric times the mainland and islands of southeastern Asia seem to have been inhabited by two dark-skinned races, one of very low (pygmy) stature, the other taller and perhaps akin to the Papuans of New Guinea.

To the Mongoloid (yellow-brown) variety of the human species inhabiting eastern and southeastern Asia belong the speakers of the Mon-Khmer language, who now occupy a great part of southern China, Indo-China, parts of India and, apparently, some of the islands. Mongoloid speakers of the Sino-Tai (Chinese-Siamese) languages, closely related to Mon-Khmer, spread, in later prehistoric times, as ancestral Chinese over northern China (the Yellow River Basin), the Tai-speakers occupying much of the Yangtze Valley and, still later, part of Indo-China. Speakers of Tibeto-Burman (also related to Sino-Tai) in ancient times inhabited parts of northwestern China.

Following a "dark" age, two Neolithic cultures, a northern and a southern, both agricultural, arose in China. The latter spread northward along the coast to southern Korea and western Japan, and then merged more or less completely with the northern type. Probably about 2500 B.C. a more advanced Neolithic culture appeared in the North, near the eastern end of "the corridor of the steppes," a very ancient migration route linking the Near with the Far East. This culture was characterized by a form of painted pottery resembling ware found in southeastern Europe.

In the same general region of China, some 500 years later, the rise of a Chalcolithic period brings the first evidence of the use of bronze in the Far East. In this region of northern China, comprising

roughly the Yellow River Basin, after another period of about the same length, a Bronze age civilization arose, highly developed from the first, which was based on almost the same elements as those which characterized the much more ancient civilizations of the Near East. By the middle of the next millennium it had spread over most of northern China, then to Korea and western Japan. It soon gave place to an Iron age of a type more archaic than that of the Near East, which was some 500 years older.

Neolithic cultural elements survived far into later ages as the basis of the peasant culture. The legendary Hsia dynasty perhaps represents an actual group regarded as the forebears of the ruling class during the Bronze age. Of the partly legendary Bronze Age Shang dynasty there are actual remains and contemporary records—inscriptions in the first writing, already well developed, to appear in China. The culture of the Shangs was characterized by rulers of a primitive priestly type, worshipping their own ancestors, who were the real power in the State; by cattle raising; and by tillage, carried on by the peasantry, descendants of the old Neolithic population. The historical Chinese civilization had its roots firmly implanted in this Bronze age civilization and there has been no serious break with the past until modern times.

The Shang dynasty was overthrown by that of the Chou, coming from the West; their rulers, who took over the priestly functions of the Shang kings, remained long in their old seats. Their power began to decline in the eighth century B.C., when they were driven eastward by new invasions from the West. Chou society was composed of two classes: nobles, comprising some 30 ancestor-worshipping clans; and commoners, who performed all the labor, using the same implements of shell, wood, and stone as their Neolithic ancestors. The latter part of the Chou period was marked by the decline of feudalism, accompanied by a revival of the old peasant religion, which came to adopt elements from the ancestor worship of the nobles. Out of this syncretism was evolved the Chinese cult of ancestors of succeeding periods down to modern times. Chinese religious ideas, together with other cultural features, spread over a large part of the Far East, including Indo-China, Korea, and Japan, during the earlier part of the Christian era.

The decline of feudalism was brought about largely by two innovations which tended to de-



stroy the prestige of the nobles, dependent as it was largely on land-owning and on preëminence in war. Land was wealth and the nobles alone could own land. The invention of coinage made possible the acquisition of wealth by commoners. Changes in the art of war, notably the supplanting of the noble charioteer-leaders by mounted bowmen, a tactical improvement learned from the horsemen of the steppes bordering the northwestern Chinese states, threw open prestige and rewards of warfare to the commoners. In these ways, two aristocratic monopolies were broken down.

Near the end of the third century B.C., the decadent Chou dynasty was brought to an end by the conquests of the warlike northwestern state of Chin, whose reigning king established a real Chinese empire.

The advance of civilization in the Old World developed two great centers of culture diffusion—the Near East and China. China played a civilizing rôle in eastern Asia, comparable with that played in the Occident by Babylonia and Egypt, Greece and Rome.

**The Road in Old Japan.**—In *Studies in the History of Culture*, 1942 (presented to Waldo G. Leland), pp. 122–155 (4 pls.), ROBERT BURNETT HALL discusses the development of roads in that part of Japan which borders the Inland Sea. There are no extended written records before the eighth century of our era, and the earliest of these, while containing interesting and valuable references to roads, are not altogether reliable. Owing to the mountainous nature of Japan, the roads very early took their present form of following the line of least resistance to natural barriers. We may safely surmise that in the prehistoric period roads led northward into Ōu, where ancient shrines and prehistoric fortresses existed. Later, when the Yamato clan migrated to the plains of Kinai, the land and water routes gravitated around that center. Tradition has the Sanyōdō road opened between 10 B.C. and 20 A.D., and the Tokaidō and Nankaidō between 170 and 200 A.D. The Sanyōdō was the first great road, and remained so for centuries, until each great city became a hub from which roads extended. With Chinese contacts, the post system, developed in the T'ang Dynasty, was taken over, extended, and standardized in Japan under the Taiho code (702 A.D., revised in 718). A description of the Chinese system is given at some length, and it is shown, by references in old Japanese writings to post stations, etc., that the Chinese influence was paramount. The ulti-

mate development and maintenance of this system had to wait upon the establishment of a centralized government, but the mountainous character of the country and the difficulty of communications retarded this development. Once established, the system of post roads on the Chinese model persisted for centuries and became one of the most fundamental institutions of the people. It was not designed as a public highway system, but for government purposes. Three classes of roads were recognized—first class, or big roads, of which there was only one with branches; second class, of which there were two, each with branches; and third class, of which there were at least four. All roads were primarily for horsemen or pedestrians. Owing to the mountainous terrain, wheel traffic was not provided for. Many of the improvements in the roads were due to the priesthood. Roads were extended and improved up to the second quarter of the tenth century, when a period of national disintegration set in. As in China, the supervision of the post roads was originally under the army, but as time went on, civil use and control increased. Each post station consisted of a storehouse, a stable, lodging quarters and offices, and they were placed about ten miles apart. On the first class road, each station stabled 20 horses, on the second class roads, 10, and on the third class, 5. Owing to the necessity for crossing mountain streams and rapids, ferries and bridges had to be provided, and in some cases sea passage from post to post. Each post station seems to have had a complement of 120 to 130 men to perform its functions. Only government officials could command the services of the post stations. Barriers were also an integral part of the road system, and were used for the defense of the cities and as toll gates. These barriers are enumerated.

About the last half of the tenth century, the post road system began to disintegrate, and a period of disorder and insecurity set in. The post stations became private institutions, controlled by powerful local magnates. This lasted until the establishment of the *bafuku* government in Kamakura in 1185, when the importance of the road system underwent a change, and a progressive road policy was instituted, with Kamakura as the hub from which important roads extended in every direction, particularly that between it and Kyōto. Many of the stations on this road later expanded to towns, which are still thriving. Still, most of the facilities of these stations were



reserved for government officials, while the priesthood, when they travelled, were sheltered in temples. But even in the strongest days of the Kamakura government robbery existed, and prevailed on the decline of this rule, with an alarming increase in barriers, and the roads became largely used for military purposes, although inns for merchants began to appear.

Between 1573 and 1603 (the collapse of the Ashikaga Shogunate and the establishment of the Tokugawa government) the pattern of a new national road system was established. Nobunaga, and his successor, Hideyoshi, sought to abolish barriers, build roads, and open communications. Hideyoshi ordered a complete land survey of the nation, renovated the system of stations, and started a truly national road system, to be carried out in the Tokugawa period, when the post road system of Japan reached its peak. Five great roads all sprang from Edo, with a number of secondary, or branch roads, all listed. All distances in the Empire were computed from Nihonbashi, "the bridge of Japan," in Edo. First class roads had a standardized width of 35.8 ft. (6 *ken*), second class at half width. Post stations became larger and more complex. Inns for all who could pay for accommodations also began to appear, of different sorts, for different classes of travellers. Many of these still exist. The result was that travel increased to the greatest extent known up to that time, which inspired the production of maps and guides, and a great literature of the road developed. The barriers were transformed into glorified police stations. The Tokugawa system thus became the pattern for the transportation system, both by rail and by motor road, of modern Japan.

**Mohenjo-Daro.**—The British Museum reports the safe arrival from India of a series of 413 objects from this famous site, the first consignment to reach Europe. Most of the specimens are pottery and figurines, but objects in bronze, shell, and ivory are included, as well as marble weights and some finely worked flints. The pottery represents the complete development at this site, even if the decorated wares are represented only by sherds (BASIL GRAY, in *BMQ.* xiv, 1940, pp. 41-42).

**Statue of Brahma.**—Through the generosity of Mrs. John D. Rockefeller, the Museum of Fine Arts in Boston has recently acquired a magnificent seated statue of Brahma, of South Indian origin, almost certainly from a site in the Madras Presi-

dency. This is published by ANANDA K. COOMARASWAMY in *BMFA.* xl, 1942, pp. 40-41 (fig. and cover illustration), who assigns it to the Vijayanagar period (1350-1600 A.D.) but it is difficult to assign a closer date to it. The greater part of the article is devoted to an exposition of the conception and functions of the god Brahma in Hindu theology. He, with Vishnu and S'iva, constitute a Trinity, differing, of course, in degree from the Christian idea, so that it is erroneous to speak of Hindu "polytheism." Brahma is a designation of the spiritual power, and his priests are the High Priests. The four faces and four arms of the statue are explained; the arms denote freedom from fear, prayer, the "playful" character of worship, and the authority of the Holy Books. The faces are pointed in the four cardinal directions.

**Chinese Lacquer Box.**—In *BMQ.* xiv, 1940, pp. 37-40, pls. XVI, XVII, R. S. JENYNS publishes a beautiful box of carved red lacquer, 6 in. high by 18 in diameter, bearing an inscription denoting the reign of the Emperor Ch'eng Tsu (1403-1424). The first mention of lacquer by the Chinese is in the Sung Dynasty, and examples of thirteenth-century work of the Yuan Dynasty have survived. The texts explain that the bodies of the objects to be lacquered were of pewter or wood, with the patterns engraved or carved on them. Black lacquer juice was used for the bottoms, and the inscription was scratched with a pin, and filled with gold dust. Thirty-six coats of lacquer were applied to the surface of the object, which was then carved according to the design already engraved on the body. This box is in accord with the technique described in the texts, and was probably made at the Kuo Yuan imperial factory. It is decorated with a foliate panel, containing a house, and figures set in a landscape, and surrounded with a border of peonies and gardenias. Other floral borders are on the side of the lid, and on the box. It appears from the Chinese texts that this carved red lacquer was introduced into China by the Japanese, and that a century later the Chinese openly admitted that certain forms of lacquer were made better in Japan.

#### U.S.S.R.

**The Peoples of the Soviet Union.**—In *Smithsonian Inst. War Background Studies* 3, 1942. ALEŠ HRDLIČKA shows that the structure of the Soviet Union has been changed since 1939 by the increase of the number of republics from 11 to 16

before the time of the German invasion in June, 1941. Of these the largest was the Great Russian Soviet Republic, with a population of over 100,000,000 and forming considerably more than half of the total population, which is estimated at almost 200,000,000, with a yearly percentage of increase of 1.4 percent. More than 45% in 1939 were under 19 years of age. The population is approximately eight-tenths White, one-tenth Yellow-brown, and the rest intermediate, although there is great race mixture.

The oldest population seems to date from the Mousterian or Neanderthal periods, especially in the south, and Upper Palaeolithic and Neolithic men reached over most of European Russia, as well as the more southern Asiatic portions of the country.

By 600 B.C., in the northern half of European Russia, there was a thin substratum of Finno-Ugrians, a somewhat Mongoloid stock, speaking Finno-Ugrian dialects. In the south there were the people known by the Greeks as Scythians. The eastern nomadic Scythians were probably Tatar and the western and sedentary portions, Slav. In Central Asia there were Turkic tribes and in Siberia, the Palaeo-Asiatic groups which were being pressed northward and some of which may have wandered to America.

The Scythians were probably mostly of Asiatic origin and belonged to the Ural-Altaic stock of Asia and were of a primitive culture. Their main tendency was to expand to the Southeast and hence the war with Darius of Persia. Later the area was invaded by the Goths from the Northwest, Huns from the East, the Khazars probably from the Caucasus, and various Turkic and Tatar tribes. Yet the chief migration that left an imprint on the country was the coming of the Slavs, who conquered the country in small bands after the sixth century A.D. They were unified by the Variags of Scandinavian origin, whether they were invited in to rule or came as mercenaries and remained to conquer. This was the beginning of Russia.

In 1226 came the final Tatar or "Mongol" invasion and the nomads of the Golden Horde held the country for 300 years, and the final group, the Khans of the Crimea, only submitted to Russia in 1783. Siberia was conquered in 1580, but at that time it was thinly populated and badly organized.

Southern Russia was devastated by the Tatars and severely depopulated. Much of the territory

fell into the Polish Empire. After a flight to the West, the population gradually came back and these have come to form the Ukrainian or Little Russians, in the opinion of Kluchevsky. Also the White Russians in the north were affected by the Poles and the Lithuanians.

The Kazaks or Cossacks, mainly of Ukrainian origin, were strong, liberty loving groups, whose military value was finally recognized. They are now strong components of the Soviet people. The newer Kazak groups established in the east were of mixed Russian and Asiatic composition. Among other western and northwestern groups are the Poles, the Lithuanians, the Latvians, the Livonians (now almost extinct), the Estonians or Tchouds, and the Finns, who were for centuries under Swedish domination. The Lapps and the Samoyeds in the north, insignificant in numbers, are the most Mongol-like of the natives of European Russia. There are scattered groups of other Finno-Ugrian and Turco-Tatars in European Russia, but they have no racial cohesion. In the Caucasus live the Armenians and the Georgians, both White units and markedly brachycephalic.

Among special groups may be mentioned the Jews, largely the descendants of refugees from Germany into Poland under the reign of Kasimir the Great. Of the 4,000,000 Jews in European Russia before the first World War, 1,300,000 were in Russian Poland and 50,000 in the Caucasus. In 1928 the Soviet set up the Jewish Autonomous Region in Birobijan in the Far East. The Germans numbered about 1,800,000. In the Baltic they formed the landed proprietors and there were separate colonies along the Volga, but these were moved in 1941 to Western Siberia and Central Asia, in view of the care that had been taken to keep the German colonies as outposts of Germanism.

The main Asiatic groups are the Tajiks, of Iranian stock, the Turkmen, akin to the original Osmanli Turks, and many other groups, but these are steadily merging with the population as the Russian Slavs are developing Siberia.

The important groups of languages are the Slavic, which combined, number about three-fifths of the population, the Caucasian, South-eastern Asiatic, Semi-Asiatic (or Finno-Ugrian), Uralo-Altaic proper, Turkic and Palaeo-Asiatic. Many of the latter groups have not been adequately studied. The most homogeneous group is probably that of the Great Russians, who might

be called a sub-race of the White human stem. They are smaller, less blond, and with eyes not so blue as the Scandinavians, but lighter than the Germans. The Ukrainians are predominantly medium in size and brachycephalic. There are different types in the Caucasus and strong Mongoloid features in the native Asiatic groups.

European Russia is thus primarily a Slav country and the same is becoming true also of Siberia and large parts of Soviet Central Asia and the Caucasus. There is no inherent inferiority in the population and this fact, together with the racial vigor and fertility, means a growing biological momentum for the Russians. This insures that Russia must in the future exercise important world influence, both anthropological and general.

**Altai Region.**—During 1939 the Altai Expedition of the Hermitage Museum, under the leadership of M. GRIĀZNOV (*Soobshcheniia Gosudarstvennogo Ermitazha* i, pp. 17–21, Leningrad, 1940), excavated seventeen tumuli at IĀkonkur, near Ust'-Kansk, in the Oirot Autonomous Area. This group of several hundred tumuli is located in a broad, steep-sided valley at the confluence of the IĀkonkur, Burgasta, and Imegen rivers. Within the chain of earthen tumuli, traversing the burial field from north to south, Tumulus No. 8 contained the inhumation, in a large rectangular grave, of two adults, one child, and two horses. The original orientation of the skeletons could not be discovered, because the grave had been robbed. Since the burial was exceptionally rich, the robbers did not succeed in removing all the valuable objects. Thus they overlooked approximately sixty gold ornaments cut out of thin leaves of gold. In addition, the grave contained fragments of red lacquer, two bronze mirrors, three clay jugs, a *maral* horn and other objects. The funeral rites and the objects are typical for the Shibin Stage of the epoch of the early nomads, attributed to a period from the second century B.C. to the first century A.D. Tumulus No. 5 belongs to the same epoch, but differs in arrangement from all other burials in the Altai Mountains. The earthwork covered a deep oval pit with a cave in the west wall. On the surface, a double ring of logs surrounded the entrance to the grave. This was filled in with an earthwork 25 m. in diameter. The burial was that of an old woman in a hollowed-out log. The grave had been robbed, but some of the bones retained their original orientation. The burial was extended dorsally to the North. The most interesting object was a head

ornament, consisting of flat cut-outs of thick leaf gold, reminiscent of some Chinese ornamental motifs of the Han period, but possibly made locally from Chinese models, and a horn comb with carved spiral ornaments. Other finds included fragments of gold incrustation for large faceted beads found among the bones, a wooden button, and an iron knife with a handle.

The use of the catacomb, the orientation of the skeleton to the North, and the absence of a horse are entirely different from the nomads' burials of this period. Since the burial was that of a member of some prominent family, this may have been an alien wife of a rich nomad from some distant tribe, buried in the family burial ground of her husband according to the rites of her own people. According to Chinese chronicles, the nomads of the first century before and after the beginning of the Christian era frequently intermarried with distant tribes and peoples. A small pile of stones nearby, possibly contemporaneous with the catacomb burial, yielded the inhumation of a colt with a bridle made of iron rings and with a horn block-shaped saddle buckle.

The second group of IĀkonkur burials belongs in the eighth to the tenth centuries A.D. Tumulus No. 1 was a large mound of stones, 23 m. in diameter, covering a shallow inhumation 30 cm. below the level of the ground, wherein stood a small wooden box containing cremated human bones, a one-sided iron sword, 23 iron arrowheads, a knife, 3 bridle fragments, and three pairs of stirrups. To the southeast of the burial, a few m. distant, two shallow inhumations were found: one with a pair of stirrups and a bit; the other, a hollowed out piece of a log, containing incinerated human bones, an iron bit and eight iron arrowheads. The metal was exceptionally well preserved in the ashes retaining the impressions of the hammer and of notches on the hafts of the arrowheads.

All burials of nomad nobility in the Altai from this period usually have fairly small mounds, and contain one or two richly caparisoned horses and elaborate grave furniture. In Tumulus No. 1, however, the deceased had been cremated together with his weapons and with the gear for three horses. Neither the weapons nor the horse trappings were decorated. In the separate graves were buried another set of horse trappings, and an armed warrior. To judge by the size of the tumulus and by the grave furniture, this was the burial of a military chieftain. On the other hand, the ab-

sence of rich inventories suggests that the deceased did not belong to the aristocracy.

The smaller tumuli of this period were of the usual type. Tumulus No. 2 contained the inhumation of a warrior, a saddle, and a bow and arrows. A dumbbell-shaped horn plaque from this burial is probably the middle plaque of a composite bow. The burial in this tumulus was covered with a roof-shaped structure of logs. The grave was divided into two compartments by means of slanting logs. In the northern half was found a woman's skeleton lying upon short boards, accompanied by an iron knife, glass and sardonyx beads, a copper ring, and sheep bones. In the southern section, a horse was buried with the bit in its mouth, a pair of stirrups and a horn buckle.

To the same period belong several intrusive burials in the outer structure of Tumuli Nos. 1, 5, and 8. Particularly rich was the burial in Tumulus No. 5, consisting of a male skeleton accompanied by bones of two horses. The finds included many objects, mainly of horn, an iron spearhead, iron arrowheads with horn whistles, horn parts of composite bows, remains of a smooth silk fabric, a variety of buckles and clasps of horn, including a hook with two perforations.

One of the intrusive burials of Tumulus No. 1 was oriented to the North. The skeleton, placed in a hollowed-out log, was accompanied by a bow and a quiver full of arrows. The quiver was encrusted with thin layers of horn solidly covered

with incised geometric ornaments. The bow was tipped with a section of horn notched for the arrow string.

To the same or an earlier period belong two stone circles, paved on the inside. Near the northeast wall of the smaller structure stood a stone post. Eighteen similar posts stood near the northeast wall of the larger circle. The structure resembles the burials of Turkish Kagans in Kosho-Tsaidam (Mongolia). Although no burials were found, it is supposed that these were funeral monuments.

According to the testimony of the Chinese Chronicles, the Turks erected on the graves of their warriors one stone for every enemy killed by the deceased in battle. The arrangement of the Kosho-Tsaidam burials bears out this statement.

The objects collected from the burials of the eighth to the tenth centuries fill many gaps in the Siberian collections of the Hermitage Museum.

A burial, attributed to the period from the fourteenth to the seventeenth centuries, was discovered in the stone mound of Tumulus No. 1. Among the stones was placed the skeleton of a woman with silver earrings and a rich necklace of glass beads. At the foot of the skeleton was found a saddle with iron stirrups, buckles, clasps, and rings, and the remains of a horn-incrusted composite bow. This period, virtually unknown in Altai archaeology, is also little known from written records.



## BOOK REVIEWS

HANDBUCH DER ARCHÄOLOGIE IM RAHMEN DES  
HANDBUCHS DER ALTERTUMSWISSENSCHAFT,  
herausgegeben von *Walter Otto* in München.  
Zweite Lieferung. München, Beck (1938).

This volume begins with the conclusion of the introductory section concerning the "Quellen" with contributions by Erich Pernice on "die literarischen Zeugnisse" (pp. 239-328) and by Helmut Arntz on "Schrift und Schriftzeugnisse Nordeuropas" (pp. 329-356, with pls. 38-42). These articles are followed by a treatise on "das Problem der Form in der Kunst des Altertums," by Bernhard Schweitzer (pp. 363-399) and a review of "die ältere Steinzeit" by Oswald Menghin (pp. 403-429, with pls. 43-48), dealing with the European art of the "Miolithicum" or the latter half of the last glacial period and the earlier part of the post-glacial period—a stretch of time which by geologists is generally dated from about 20,000 to 5,000 B.C.

The second half of the volume (pp. 432-642), the only one which I am able to judge as a specialist, comes down to less astronomical figures. It deals exclusively with the art of ancient Egypt, from its beginnings in the fifth millennium B.C. down to its latest works in the years of the Roman Empire, and is written by Alexander Scharff, the well known Egyptologist of the University of Munich. Scharff has divided the huge mass of his material into five sections: 1. The beginnings of Egyptian art, down to the end of the second dynasty (pp. 434-464). 2. The pyramid time of the Old Kingdom and the first intermediate period (pp. 465-524). 3. The Middle Kingdom and the second intermediate period (pp. 525-550). 4. The New Kingdom and the transition toward the "late times," down to 712 B.C. (pp. 551-611). 5. The late times ("die Späzeit"), from 712 B.C. to 395 A.D. (pp. 612-642).

Within the individual sections the author introduces subdivisions treating the architecture, the sculpture, the drawing (including reliefs and paintings) and the applied arts ("Kunstgewerbe") of the different periods. In the chapter dealing with the art of the Old Kingdom, a lengthy theoretical passage, based largely on Heinrich Schaefer's thoroughgoing investigations, precedes the sections treating the drawing and sculpture of this period (pp. 491-497).

The quicker rhythm of the New Kingdom apparently made a further division of the fourth section necessary. Scharff decided on five sub-sections: A. The beginnings and the first zenith, down to Amenophis II. B. The time of maturity, from Thutmosis IV to Amenophis III. C. The Amarna period. D. The time of restoration and the second zenith, comprising the 19th and 20th dynasties. E. The time of decay during the 21st to 24th dynasties. (This last part forms only a brief appendix to the section dealing with the New Kingdom. It is followed by a summary treatment of the applied arts during the whole period of the New Kingdom which, rather inconsistently, is designated as sub-section F).

Within his fifth main section, Scharff treats not only the Egyptian "Späzeit" proper, which he subdivides into the "Ethiopian" time (dyn. 25), the "Saitic time" (dyn. 26) and the time of the Persian conquest (dyn. 27-30), but also the "Greco-Roman time." The latter he reckons from 332 B.C. to 395 A.D. He discusses first the Egyptian temples and their reliefs, second the "Meroitic" monuments in upper Nubia, and third the monuments of Greco-Roman art in Egypt. A fourth sub-section deals with the sculpture of this period, Egyptian as well as Greco-Roman. The last two sub-sections treat the Egyptian monuments in Italy and Egyptian elements in Coptic art.

The text contains a map of Egypt and about thirty ground plans of architectural features. There are sixty-four plates with two hundred fifty-four photographs, amply illustrating the different phases and objects of Egyptian art.

The merit of this excellently written and absolutely reliable treatise inheres not so much in new conceptions of Egyptian art or in any new approach thereto, but rather in the masterly outline of the history of the various branches of this art during the several periods of Egypt's general history. The author writes not as a specialist in art history, but as a trained historian and archaeologist. He commands a vast knowledge of Egyptian monuments as well as of the widely dispersed general and special literature concerning these monuments. His book is a mine of information for everyone who wants to make a thorough study of Egyptian art; the copious notes should enable the



reader at every step to check the author and to form an opinion of his own.

As to the general understanding of Egyptian art I am in perfect accord with Dr. Scharff. He pictures convincingly the attitude of the Egyptian artist toward nature and his strivings to render reality, far from any kind of conscious abstraction (p. 493).

The author's statements regarding his own attitude toward Egyptian art are excellent and should be remembered by all who sincerely try to understand and to enjoy it: "Egyptian art, in its stern? ("herben") coolness, cannot be conquered at first sight ("im Sturm") and will never yield to him who woos it with modern sentimentality. It is only after having acquired a knowledge of its spiritual structure that we may enter, full of reverence, the colorful world of the reliefs and sculptures of the Old Kingdom and ask the monuments for what they may reveal to us."

It cannot be denied that in the immense field of Egyptian art no two specialists need necessarily agree upon all the details. I should like to state my differences of opinion on a few major points. On pp. 498 ff. Scharff states that "all Egyptian art is mostly religious, a characteristic of all genuine art which, toward our own time, unfortunately, has been more and more neglected." I would distinguish here between "religious art" and the art of a religious people. There is no doubt that the men who created the reliefs and sculptures of the Old Kingdom were devoted to their gods and worshipped them in sincerity. But if "religious art" has any meaning at all, it can only be that it is an art used in the service of religion, i.e., in the cult of the gods. This, however, is true of only one part of Egyptian art and, as is well known, not the largest one, especially during the earlier periods. Under the Old and Middle Kingdoms, the majority of the works of art was not created for the temples of the gods or for the monuments of the god-kings,<sup>1</sup> but for the tombs of the nobles. This art, in my mind, is of an entirely profane nature. The deceased were never thought of as gods,<sup>2</sup> and their tombs were houses,

<sup>1</sup> Incidentally, it may be said that even if we should speak of the royal tomb monuments as "temples," the misleading word "valley temple" instead of "portal building" ought to be avoided.

<sup>2</sup> The expression "cult of the dead" ought to be avoided, at least for the earlier periods, and it seems grotesque to speak of an elaborately developed cult of the dead even in the later periods of Egyptian history (p. 437).

i.e., dwelling places for eternity, but not temples. These tombs, with their statues and reliefs, corresponded to and originated from certain funerary customs, which were based on a belief in the continuation of life within a perfectly worldly hereafter, and it seems to me misleading to designate these works as "religious art." In his excellent description of the statue of "Hemion" in Hildesheim (p. 516), Scharff seems to contradict himself in stressing its absolutely worldly appearance, in which no "goettlichen Hauch" is discernible.

On the other hand, it conveys a wrong impression when Scharff maintains (p. 498) that the artists of the Old Kingdom created their works only (!) for the reputation of the owner of the tomb during his life and for his fame after death. This motif would seem a very irreligious one indeed for works of art and thus to contradict Scharff's own words—but it certainly is due to an erroneous interpretation. The social position of the tomb owner, no doubt, found expression at first in the size of its statues, but the main motif was always to supply the nobles with all their needs after death and to make their second life as agreeable and as similar to the first as possible.

But enough of dissenting remarks. As a whole, Scharff's treatise is an unusually valuable addition to the existing literature on Egyptian art. We are deeply indebted to him for his painstaking and often illuminating work, and it is to be hoped that it may soon be followed by a second edition, separated from the large series in which it is now more or less hidden, and thus be made more easily accessible to a larger public.<sup>3</sup>

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EGYPTIAN ARCHITECTURE AS CULTURAL EXPRESSION by E. Baldwin Smith, with illustrations by the author. New York and London, 1938. \$6.00.

There has long been need of a textbook on Egyptian Architecture in which the known examples are gathered conveniently for reference, and where the evolution of structure and decoration is clearly traced. Professor Baldwin Smith has undertaken to meet this need and we are grateful to him.

After an introductory chapter entitled "Environment," in which he describes the Nile Valley

<sup>3</sup> A number of additions to Scharff's text is found on pp. 863-868 of the same volume of the *Handbuch*.

and its climate, the available building materials, the relation of social conditions to architectural development, and the chronological framework of the dynasties, the author devotes his next three chapters—nearly a third of the book—to the formative period in architecture under the headings “The Formation of Ideas,” “The Beginnings of Dynastic Architecture,” and “The Stepped Pyramid at Saqqara.” To the latter monument he attributes, quite rightly, very great importance. Chapter V is devoted to the evolution of the Dynastic Tomb, being in a sense a sequel to Chapter III. The subject is treated under the headings of the Mastaba, the Pyramid, Pyramidal Variations, Rock-cut Tombs, Late Tomb Types, and Cenotaphs. Next come three chapters (VI–VIII) on Dynastic Temples, containing discussions of most of the major monuments of this class in considerable detail. Chapter IX deals with house architecture, palaces, city plans, villas and gardens, and forts—the whole field of secular as opposed to religious and funerary building. Chapter X, entitled “Egyptian Architects and their Methods,” describes ancient plans, elevations, and other graphic representations, and discusses some known individual architects and builders. The final chapter repeats the title of the book and is a most stimulating exposition of Egyptian habits of thought and imagery, and of their attitude to aesthetics. It is quite as applicable to the arts of sculpture and painting as to architecture itself. The reviewer has found this concluding chapter much to his liking, for it appears to him to show essentially sound understanding of the attitude of the ancient Egyptians toward their artistic productions, an attitude which differed so markedly from that of modern man in the Western World.

The reviewer has read this book with great interest and finds himself in substantial agreement with much of it. He would venture, however, to comment on a few points about which he questions the author's position.

Page 48 and note 21; page 51 and note 27. As Reisner has so clearly demonstrated in his *Development of the Egyptian Tomb*, etc., the superstructure was in no sense the dwelling place of the dead, who resided rather in the substructure below—grave, burial pit, or subterranean chambers. The superstructure, at first a marker for and a protection to the grave, became subsequently the place to which offerings for the dead were brought and at which contact was estab-

lished between him and the living. Its evolution was controlled by developing conceptions of mortuary ritual—in the Old Kingdom by the space requirements for ceremonies, for the funerary statues, and for the pictured scenes thought necessary to the welfare of the dead. The presence of false doors in the superstructure does not imply an origin in the house for the latter; rather these should be regarded as the spirit entrances and exits to the dwelling place of the dead below ground.

Page 53. The so-called embryonic posture of the Predynastic Period and of poorer burials of later date is perhaps simply the result of placing the dead in the smallest possible excavation, and without intentional or symbolic relation to the embryo.

Page 58 and elsewhere. The implication is made that the pyramidal form of the royal tomb superstructure was derived from the *ben-ben* of Heliopolis. It should be noted that Reisner, the outstanding authority on Old Kingdom tomb structure and funerary practices, takes a different view (*Development of the Egyptian Tomb*, p. 340); the pyramid was a natural step by step development in an evolutionary process which we can trace throughout its course. Its association with the sacred *ben-ben* was superimposed and had nothing to do with its origin.

Page 76, top. With regard to the origin of the fluted columns of Zoser, there is a possible explanation put forward, neither by the author nor by Firth-Quibell. The prototype, of which these columns are stone “translations,” may have been of reed-bundles embedded in mud—a sort of reinforced mud-concrete construction. The forms or moulds for these columns would have been made of other reeds, removed after the mud had dried, thus leaving a fluted surface. Possibly the original intention might have been to scrape down the surface after removing the mould, but the fluted effect was found pleasing and was retained.

Page 96. The theory that the Great Pyramid was originally planned to its present dimensions and was so built without alteration was once enunciated by Petrie, but there is general agreement among such authorities as Borchardt, Steindorff, and Reisner that it was enlarged during construction, probably twice, and that the peculiar arrangement of its passages and chambers shows three different plans superimposed one on another. The description of the Giza necropolis as containing “a cluster of much smaller pyra-

mids" is somewhat misleading. Actually there are three distinct groups of pyramids belonging to the queens of Cheops, Chephren, and Mycerinus; a row of three east of the Great Pyramid, a single one south of the Second, and another row of three south of the Third. Note further that the only corbel vaulting in the Great Pyramid is over the Grand Gallery.

Page 101. It is not generally realized that there was granite casing on the lowest courses of the Second Pyramid; the granite casing blocks on the Third Pyramid are better known and extend to a higher level.

Page 108. *Ethiopian Period.* Egypt was conquered by the Ethiopian Piankhi (744-710 B.C.) who founded the XXV Dynasty (not the XXIII). According to Reisner the ancestors of the Ethiopian kings of Egypt were south Libyan tribesmen who had settled at Napata some seven generations before Piankhi (not Libyan mercenaries from the north). The development of the primitive tumulus-over-pit grave into the Ethiopian pyramid was discovered during Reisner's excavation of the earliest of the Ethiopian royal cemeteries at El Kurruw in 1917-18, having been previously quite unknown. Preliminary publication of these excavations is found in two places only, at least one of which Professor Baldwin Smith must have known to write what he did. As these sources are not generally familiar it would have been helpful to the student if the author had cited them. They are, Reisner, in *BMFA*, xix, p. 21 ff.; id. in *Sudan Notes and Records* ii, pp. 237 ff.

Page 111. The occurrence of burial pits in the floors of rock-cut tombs is hardly to be regarded as derived from a practice of burying the dead under the floors of houses. Such location is the result of local topography and convenience and has no ulterior significance. When a rock-cut tomb, as generally, is excavated in the side of a steep hill or cliff, the only convenient place to sink the burial pit is in its floor.

The column referred to does not represent four palm-trunks and lotus flowers, but rather four lotus buds and their stems bound together.

Page 114. *Saïte Period.* Our knowledge of the royal tombs of the XXVI Dynasty at Saïs is based on the statements of Herodotus, which cannot be taken too seriously. Since this book appeared, Prof. Montet's excavations at Tanis have thrown some light on royal tombs of the XXII Dynasty in the Delta. These were within the temple enclosure, but not in the temple itself. Pub-

lished photographs of the excavations appear to show that the burials were below ground level. See *Chronique d'Égypte*, July, 1939, pp. 276-7; *Illustrated London News*, January 14, 1939.

Page 123. The basalt remains in the ruins of the pyramid temple of Cheops are fragments of the pavement and not of the foundations.

Page 212. Akhetaten signifies "Horizon of Aten," not "Aten is satisfied."

Page 229. Hatshepsut imported the famous myrrh trees from Punt in order to supply incense for her temple. They hardly serve as evidence for the Egyptians' love of flowers.

Page 230. The fortress referred to (Pl. LXXIV-1) is Hittite, not Egyptian. See Wreszinski, *Atlas*, etc. ii, Pl. 108.

There are two points of a more general nature on which the reviewer feels obliged to touch. The theory that the whole range of dynastic tomb and temple architecture was derived from primitive dwellings of the earliest periods does not seem to him convincing, yet it is a *leit-motif* which runs all through the book. On page 15 the author himself says ". . . the rudimentary forms of architecture persisted unchanged long after more elaborate and permanent types were evolved. For purposes of actual dwelling the primitive house-types sank lower and lower in the social order, and were continued by those classes of society whose habits and resources were nearest to the level at which such architectural forms originated." This statement is quite sound, but to the reviewer it carries as a corollary the thought that the new needs of a more sophisticated culture, and the changing conditions inherent in new materials, methods, and resources, led to new forms and conceptions, quite independent of the earlier ones, especially where buildings of practical utility (in the ancient Egyptian view) such as tombs and temples were concerned. Had there been no great changes in building materials and methods, perhaps the author's contention might be sounder. Furthermore, since we lack almost completely any surviving examples both of dwelling houses and of the temples of the gods previous to the New Kingdom, we have no concrete evidence linking later structures of these classes with primitive representations of them, and the latter are at best very difficult to interpret. As to the forms of tomb superstructures and funerary chapels, the reviewer has already questioned the contention that they were derived in the first place from house forms.

Secondly, the reviewer believes that the rôle of symbolism in the development and persistence of architectural forms has been somewhat over-weighted by the author. That symbolic considerations had an important place in ancient Egyptian culture is beyond dispute—ornament and religious ritual are permeated by it. Yet we should be cautious in giving it too much emphasis. In the field of architecture especially its rôle is quite subordinate to considerations of the practical use and the functional suitability of buildings.

The author has been most generous with his illustrations. Many of them are line cuts drawn by the author from published photographs. This is regrettable, since such illustrations have the disadvantage of introducing the element of subjective interpretation—they are in a sense second-hand evidence, while a photograph, however unsatisfactory in some respects, is at least not affected by the human element. The plates are accompanied by captions on the facing page, in most instances giving the source from which the illustration was taken. In many cases, however, the drawings made from photographs lack such references, and one regrets in particular the lack of precise identification, by museum numbers, of several "soul houses" in Cairo. In several instances, also, the source references are wrong, notably in the illustrations of the Step Pyramid complex at Saqqara. For the convenience of users of the book the reviewer cites such of these errors as he has noted.

Pl. XII-6. See also text, pp. 57-8. The caption should read: "Subsidiary chambers added to I Dynasty temple, Abydos" (Petrie, *Abydos* ii, Pl. L). Note that in Petrie's plan the forepart (upper) of the building is later in date (end of the dynasty) than the lower (c). The building should not be cited as a type of the Proto-Dynastic temple since it was, according to the excavator, merely an addition subsidiary to an older building. On page 58 the author refers to the building as II or III Dynasty, while on page 199 he calls it I Dynasty. The latter reference is, according to the excavator, correct.

Pl. XIV-5. This reconstructed perspective appears to have been adapted by the author from Lauer, *Pyramide à Degrès*, Pl. XXIX; Pl. XV-2. The clerestory openings differ markedly in proportion from the section given by Lauer on the plate cited; XV-3. Wrong reference; should be Lauer in *Ann. Serv.* xxix, p. 101, fig. 5; XV-5. Wrong reference; should be Lauer in *Ann. Serv.*

xxx, p. 146, fig. 4; Pl. XVI-2, 3. Wrong reference; should be *Pyr. à Degrès*, Pl. LVIII; Pl. XVIII-3. Wrong reference; should be Lauer in *Ann. Serv.* xxvii, Pl. II; XVIII-4. Wrong reference; should be Lauer in *Ann. Serv.* xxvii, p. 117, fig. 6; XVIII-5. The reference is correct, but note that the capital, which is stated by Lauer to be purely conjectural, is not a lotus, but the so-called "lily" of Upper Egypt; Pl. XXXI-1. No reference given to publication. This is particularly unfortunate when the illustration is a schematic reconstruction; Pl. LIX-2. The lettering given in the caption has been omitted from the plate; Pl. LXII. Items 3 and 4 have been reversed.

Pl. LXVI-3. See text, p. 203. The object represented is a funerary model consisting of a board to which were affixed figures of a man and several cattle with, in the lower left corner, the representation of a pigeon-cote of familiar Egyptian form.

The following errata have been noted:

Page 29, line 9. For ight read light.

Page 37, line 23. For Meneit read Merneit.

Page 47, line 10. For King Mentuhotep read simply Mentuhotep; the same error in caption to Pl. IX.

Page 49, line 27. For Negadeh read Naga-ed-Der; the author has confused these two site names in a number of places.

Page 52, line 10. For Pl. IX-9 read Pl. X-9.

Page 52, line 28. For Girza read Garga.

Page 65, caption to Pl. XIV-4. For rôle read roll.

Page 127, line 6. For Pl. XXXI-7 read Pl. XXXII-7.

Page 161, bottom line. For eight feet read eighty-two feet.

Page 171, line 28. For south read north, for north read south.

Page 172, line 7. For three read six.

Page 193, line 25. For Nectanebis read Nectanebos.

Page 199, line 10. For room read roof.

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THE CHRONOLOGY OF HELLENISTIC ATHENS, by William Kendrickritchett and Benjamin Dean Meritt. Pp. xxxv+158 with 14 figures in the text. Quarto. Published for the American School of Classical Studies at Athens. Cambridge, Massachusetts, Harvard University Press, 1940. \$5.00.

"This is essentially a book for specialists," so the authors say in their foreword. This review,



however, does not claim to be addressed to the same selected group.

The most striking contribution of the volume is the chronological table which, on twenty neatly printed pages, combines all the necessary first-hand information concerning the Athenian archons, the secretaries of the Council, and the priests of Asklepios in the period from 307/6 to 101/0 B.C. We are now in the fortunate position of possessing an up-to-date archon table for almost the entire period from 307 B.C. to the end of the Roman period. J. H. Oliver's recent list covers the period from 30 B.C. onward (*Hesperia* xi, 1942, pp. 81-90), and only the crucial years between 100 and 30 B.C. still await a special study.<sup>1</sup>

The first chapter contains a detailed discussion of the changes in the tribal constitution brought about by the creation of the two Macedonian tribes. "The important contribution of this calendar study is that it corroborates the finding made earlier in the study of the cycles that the Macedonian tribes were already planned before the year (307/6 B.C.) began." In passing, the authors call attention to the small number of decrees from the reign of Demetrios of Phaleron, and they make the interesting observation that "in a general way the ebb and flow of democratic government may be measured, throughout the fifth and fourth centuries at least, by the relative numbers of preserved decrees"; compare *CP*. xxxvii, 1942, pp. 326-327.

The second and third chapters largely deal with the inventories of the priests of Asklepios. Here, as well as in the first chapter, recently discovered documents are the backbone of the new theories, and this is another important feature of this volume: it contains the first publication of a great number of inscriptions; see *Hesperia* x, 1941, p. 90. Prosopographical evidence is used, both extensively and carefully; for a recent addition, see *Hesperia* xi, 1942, pp. 299-302. In brief, the authors come to the conclusion that the published inventory records of the priests of Asklepios, "in so far as they are determined by cycles

at all, are fixed in their extent by the cycles of the secretaries of the Council." Any student of the inventories published as *IG*. ii<sup>2</sup>, 1534 will enjoy the fine and sometimes humorous observations contained in the third chapter which in its entirety is devoted to this inscription.

The fourth chapter contains both a list of the known priests of Asklepios and a critical commentary on this list. Certain necessary corrections have been made by Pritchett in *AJP*. lxii, 1941, pp. 358-360. I may be permitted to make here a few general remarks on the relation between the priests of Asklepios and the treasurers of Athena. The prime of the treasure of Athena belongs to the fifth and fourth centuries, while the importance of the sanctuary of Asklepios is not much older than the end of the fourth century. It is probably not a mere coincidence that the tribal cycles which originated in the fifth century in the highly important office of the secretary of the treasurers of Athena (and of the secretary of the hellenotamiai) were later taken over for the selection of the secretaries of the Council and of the priests of Asklepios. The decline of the Athena cult during the fourth century was largely caused by the growth in importance of the cult of the health deities and especially of Asklepios. The preserved Attic dedicatory inscriptions clearly show this development. From the second half of the fourth century onward the Athena dedications decrease rapidly both in number and in size, while the offerings to Asklepios become more and more numerous. Since the priests of Asklepios took over some of the duties of treasurers, it is not surprising that their appointment should be guided by the rules of the tribal cycle.

The remaining chapters, the fifth and sixth, deal with the archon list of the third and second centuries B.C. The detailed discussion of some well known inscriptions is overshadowed by the publication of several recently discovered, important documents.

This volume is the most recent of a series of contributions which are concerned with the chronology and especially with the archon list in the Hellenistic period; see *AJA*. xlv, 1941, pp. 145-146. These studies have not yet crystallized in a new comprehensive and general account of Athens in the Hellenistic period, but the volume under discussion goes a long way towards this goal.

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<sup>1</sup> The following notes are pencilled in our copy of the chronological table. 192/1: the secretary's demotic was probably [Ἀλκίειος]; see *Hesperia* xi, 1942, p. 311. 184/3: the secretary's name was [—<sup>ca. 10</sup>—] Φιλοξενίδου Π[αμνούσιος]; see *Hesperia* x, 1941, p. 278. 119/8: the secretary's full name was Μοσχίων Μοσχίωνος Πατριανεύς, according to an inscription now probably published in the third volume of the Kerameikos publication.



CORPUS VASORUM ANTIQVORVM, U.S.A., Fascicule 8: Fogg Museum and Gallatin Collections, by George H. Chase and Mary Zelia Pease. Pp. 116, pls. 74 (I-XLII, 33-64). Cambridge, Mass., Harvard University Press, 1942. \$5.00.

The generous size of this newest addition to *CVA* is only one of its many pleasing qualities. The fascicule includes all of the Fogg Museum Collection, and the additions to the Gallatin Collection since 1924. Its richly varied contents range from pre-Hellenic to Roman Imperial times. Both authors are archaeologists of note, whose writings must be familiar to anyone interested in ancient pottery. In this work, both parts contain new attributions to various artists, and other important advances in scholarship. The text considerably follows a middle path between tantalizing brevity and exhausting fullness. Mr. Chase's commentary on the Fogg Museum Collection, which forms the larger and more miscellaneous part of the material, is necessarily restricted, but fortunately he allows himself more space in the sections dealing with *terra sigillata*. The Gallatin vases, fewer and more homogeneous, are given ampler treatment: our knowledge of Attic vase-painting gains much through Miss Pease's study of them.

Description (all-important in texts to *CVA*.) is accurate and complete, leaving little to be desired by even a captious reader.—Fogg, pl. 7, 1: there is no mention of red bands on the amphora's lip and neck.—Pl. 9, 1: apparently not from a panel-amphora; at least, I know of none with comparable ornament, and there seems to be no recurve on the shoulder. Perhaps a paneled neck-amphora? Acropolis 822 (Graef-Langlotz, i: 2, pl. 51) is similar, but also fragmentary. The ornament is not uncommon on neck-amphoras of the time, e.g., *JHS*. 1927, 84 no. 18 and 86 no. 42 (Antimenēs Painter; cf. p. 80).—Gallatin, pl. 45, 1 (and elsewhere): all nonsense inscriptions should be transcribed.—The Greek inscriptions are not indexed.

Observations on style, dating and interpretation, even in the shorter notices, fulfill their main purpose of opening avenues to further study of the vases; for most pieces much more is given. I offer some additional notes, and a few corrections.—Fogg, pl. 3, 1: The fragment *Thera* ii, 49 fig. 159 is truly Cycladic.—Pl. 3, 3 (jug of "Gamedes" type): there is some objection to calling vases of this period "geometric" (*JHS*. 1927, 148).—Pl. 3, 8: Protoattic jug-aryballos; cf. Cook, *BSA*. 35, 214, especially items 2 and 3.

—Pl. 7, 1: as Chase's date (c. 560-550) implies, the milieu of this amphora is "Tyrrhenian" (or "rustic Lydan") rather than Vourva. Cf., for the figure between animals (an inheritance from earlier times: *JHS*. 1929, 256), the ovoid neck-amphora in the Metropolitan Museum, *Vente 11-14 mai 1903*, pl. 1, 4; for the star pattern, *CVA*. Brit. Mus. 3, III H e, pl. 23, 3, and Oxford 2, text, p. 98 (Tübingen D 31 is Boeotian).—Pl. 8, 2: the date seems early.—Pl. 11, 1 and 2, mugs, near the Haimon Painter (cf. Haspels, *BFL*., 246, nos. 5-6), hence fifth-century; pl. 21, 5 (W.gr.) is perhaps by him (cf. Haspels, nos. 14 and 98).—Pl. 11, 3: cf. Coliu, *Musée Kalinderu*, 76, figs. 51-2.—Pl. 11, 7: related to, but later than, Athens 414 (*BFL*., pls. 11, 3 and 12, 4).—Pl. 11, 8, Dolphin Class (*BFL*., 193 f., esp. no. 6).—Pl. 11, 10, "Cock Class" (*BFL*., 67 f.).—Pl. 21, 4, Beldam factory (*BFL*., 181).

Pl. 15 seems not so near to the Painter of London E 777 (not represented on the Brussels plates cited) or of Brussels R 330 as to some cups still closer to the Penthesileia Painter, especially *BAV*. 278, 1 and 1 bis (cf. also *AA*. 1928, 319 figs. 39-41). The mysterious "Goody cross" (Chase: "whirligig") occurs in Fig. 1, d.—Pl. 19, 3: it should be noted that this is the Hoppin vase mentioned by Beazley, *JHS*. 1939, 31, γ.—Pl. 27, 4: the plastic heads are evidently from the same mold as Jenkins, *Dedolica*, pl. 11, 5. On the unexplained occurrence of "dedalic" heads in sixth-century bucchero ware, cf. Jenkins, 92 f.—Pl. 27, 6: the type calls for a reference to Jacobsthal-Langsdorff, *Die Bronzeschnabelkannen*, especially to beaked oinochoai of clay, 60 f., nos. 132-8 and pls. 26 f. (the bronze jug here cited is their no. 57). Bronze examples of the shape seem to belong to the early part of the fifth century (*op. cit.*, 61), but this vase's profile is abnormal.—Pls. 30-34, 40-41: cf., now, Comfort, *RE*. Suppl. 7, 1295-1352, s.v. *Terra Sigillata*; also (for several pertinent signatures) *NS*. 1931, 288 ff.—Pl. 37, 3: doubtless Campanian, as stated, but the parallels given are Attic (*JHS*. 1928, 127).—Pl. 38, 2: published in Lacroix, *La faune marine*, pl. 13. The fish at upper left has been variously called mullet, *labrus festivus*, rockfish. I wonder whether "perch" is broad enough to apply to any of these kinds.

Gallatin, pl. 33, 4-5: there is a newer and fuller list of these helmeted heads in Knoblauch, *Studien*, 143 ff., nos. 130-136 A.—Pl. 33, 13: cf. Knoblauch, 146 ff., nos. 144-153 (the Munich alabastron must be his no. 148 or 149).—Pl. 34, 2:

another hare of this class will appear in H.R.W. Smith's *CVA*. San Francisco 1.—Pl. 36, 1: there is a useful new study of the Swing Painter by J. M. T. Charlton in *Manchester Memoirs*, 83, 1938–39, 191–201.—Pl. 37, 1: Miss Pease tentatively gives three other pieces to this hand; with like reservations add *CVA*. Brit. Mus. 3, III H e, pl. 39, 1.

Pl. 41, 1: καλίστε φαρθενον. "It will be remembered that the painters of little-master cups are especially interested in girls: one of their favorite subjects is a girl's head. The inscription puts in words what they are in the habit of expressing in line (Beazley)." Yes, but words and drawing meet at least once, on a cup in Munich (Klein, *LI*. 50; *JdI*. 1907, 104 figs. 23–4; Buschor, *Gr. Vm.* 3, 129 fig. 93): each side, in handle-zone beneath female protome, Καλίσταυθε καλε. They meet oftener on Corinthian vases, where we find labeled portraits of Aineta, Erata, Nebris, Klyka (Glyke), and other beauties.—Pl. 42, 5: there is a near-replica (White ground), also by the Haimon Painter, in the City Art Museum, Portland, Oregon (Smith).—Pl. 46: if the youth is picking up a spear he is not an armed runner (and conversely), as others have pointed out.

Careful proof-reading has given an almost flawless text.—P. 87: for *tractaverunt* read *tractaverint*.—P. 88: is the number, "New York 06. 1021" complete?—Index (pp. 21, 24, 46): "griffins" and "griffon-birds" are inconsistent; and for *C. Tettius* read *C. Tellus* (p. 49: cf. *CIL*. xi. 6700, 666–70).

The plates are clear and on the whole slightly, in spite of difficulties expressly mentioned for the Gallatin vases. Is it too porous paper, or too heavy printing, that causes some loss of detail (troublesome also in the vaunted German fascicules)? The sequence of classes in the first part is unusual in that Gallo-Roman ware is quarantined from Italian sigillata, Attic b.-f. on white ground from ordinary b.-f. In the arrangement of pictures on the plates there are a few needless blemishes. For example, ground-lines waver or are ignored on crowded plates, such as Fogg, pls. 4–6, 11; the medallion figure of pl. 9, 4 b (so too Gallatin, pl. 47, 1) is askew; there is no view of the shape of Gallatin pl. 46, nor of the hydria pl. 56 (cf. *JHS*. 1930, 162), where the space actually encouraged its inclusion; and in pls. 51, 2 a–b and 53, 1 a–b, figures which should face are put back-to-back.

The new box-portfolio is a blessed relief from

the perishable and time-wasting strings: it would be an added convenience to have bound together the loose sheets of the text. And why cannot American fascicules adopt generally the abbreviations sanctioned by the *AJA*? Of the 79 titles here listed, about a third could thus have been spared.

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OBSERVATIONS ON THE HEPHAISTEION, Hesperia, Supplement V, by William Bell Dinsmoor. Pp. 171, 76 ills. American School of Classical Studies at Athens, 1941. \$5.00.

The purpose of this publication on the Hephaisteion is, as the title implies, to set forth the result of the recent investigation of the building, undertaken in connection with the general excavation on Kolonos Hill. It is not a final architectural study, but rather a detailed preliminary report of the excavation of 1936–1939, supplemented by the author's observations made at intervals since 1914. It also contains the additional information obtained through the reconstruction work by the Greek Archaeological Service, in the course of which the apse of the church was removed and the columns of the pronaos restored. It is appropriate that this, the best preserved of the Periclean buildings, should become the first to be subjected to a systematic investigation according to the standards of modern excavation technique.

In the clearing of the interior and of the peristyle much new material was discovered that will help to solve the problems of the original construction and will also shed light on the subsequent history of the temple. Nearly all the available space had been occupied with graves, most of them dating from the thirteenth and fourteenth centuries A.D. Only the pronaos and the east peristyle, occupied by the altar and apse of the Christian church, had been spared the destruction caused by the graves.

In a second period of interment, during which the interior of the church became a Protestant cemetery, the original fill beneath the floor was subjected to further disturbance and confusion. The chapter dealing with this late use of the building will seem to many the most readable section of the book. Through a study of contemporary accounts and preserved epitaphs the author has been able to give interesting side-lights on activities of prominent foreigners in Athens, mostly British travelers, from the time shortly before the Greek War of Independence. The reconstructed

story of the several epitaphs prepared by his friends for John Twedell, the first of the Protestants to be buried in the Hephaisteion, reads like a chapter out of Jane Austen.

Owing to the destruction caused by the graves, disappointingly little of the original fill within the building remained for the excavators to examine. To compensate for this loss the graves made it possible to lay bare the foundations more completely than would otherwise have been the case, and thus a very accurate record of their construction could be obtained. The work had proceeded from the outside toward the inside, and each rectangle of foundation was laid independently of the others. The interior columns appear not to have been part of the original plan. Other important changes were also made in the course of construction. It was discovered, for example, that the cella as originally planned was to be considerably larger, and the pronaos and opisthodomos correspondingly shallower. Two distinct changes, each shortening the cella, can be traced in the construction of the east cella wall. In the case of the west wall only one such change was effected.

The significance of these irregularities in the foundation has in some instances been stressed beyond the limits of probability. Not every deviation from the norm is of consequence. Sufficient allowance has not been made for the fact that the temple is the work of human hands, that those hands were sometimes directed by individual caprice or mistaken judgment, for which no logical explanation is possible. The foundations for the cella walls, for example, project considerably toward the inside, whereas on the outside they sometimes recede slightly from the wall plane; and this is interpreted as an indication that a narrower cella was originally intended. The alteration is explained in part as an attempt "to modernize the somewhat archaic proportions of the plan". But a glance at section A-A on page 32 shows a similar discrepancy in the foundations for the peristyle at the east and west ends of the temple. A slight shifting of the whole building toward the west, without change in plan, would have centered the columns more directly on these foundations. This more serious divergence from the normal position of the foundation is rightly explained as a simple error. So in the case of the cella walls the anomaly may have been due to a misjudgment on the part of the man who staked out the foundation trench. Having received the

measurements from the architect, he gave the rectangle of his trench the exact outer dimensions of the cella without making allowance for the projection of the foundation.

Another irregularity, even less striking, has given rise to much theorizing. The foundation for the south interior colonnade has at the west end two stones projecting slightly toward the interior, and a corresponding widening of the foundation seems to have existed on the north side, where most of the blocks are missing. The two "ears" formed by these projections, which are not carried above the lowest course, the author explains as intended supports for the monumental statue base in an original scheme, temporarily given up or at least deferred after the first course had been laid, but reverted to in a final arrangement more than a quarter of a century after the completion of the temple. An alternate interpretation by Homer Thompson is stated in a footnote on page 73. The whole discussion about the "ears" reads like much ado about nothing. Even if the two projections had extended to the top of the foundation, it is difficult to see what purpose they could have served in connection with the statue base. The slight overlap, about one foot at the south end and less than two feet at the north end, according to the author's restoration, would only have caused the base to settle unevenly, since the whole middle part carrying the main weight of the statues was not similarly supported. The projection of the south foundation, amounting to only 0.11-0.26 m., is so slight as to be without significance. Reused material was apparently built into both "ears," and this fact alone might be sufficient to account for the discrepancy.

For the interior arrangement of the cella very little material evidence remains beyond that of the existing walls and three very important blocks discovered in the apse of the church. Two of these, of Eleusinian stone, are from the pedestal for the cult statues. They preserve at the top the beveled edge from the cutting made for the reception of the crowning member of the base. By a combination of the two blocks, which are of the same height but vary slightly in length, it has been possible to restore a pedestal suitable for the two statues of Athena and Hephaistos made by Alkamenēs in 421-415 B.C. One of the blocks has on its face five dowel holes for the fastening of relief figures decorating the base.

A third piece of marble recovered from the demolished apse has been identified as an epistyle

block from the upper row of interior columns. It is placed at the east end of the south colonnade, where it spans a short interval between the east cella wall and the first column. Two peculiar recesses at the end fixed in the wall are discussed at great length, but the explanation is not wholly convincing. A full discussion of this highly important block, which forms the basis for the restoration of the interior colonnade, would exceed the aim and limits of a book review.

As a final check on the proposed restoration the evidence from metrology is adduced, but this seems rather to weaken than strengthen the case. If the dimensions of the restored interior are intended to show any significant relation to the Doric foot, the results are anything but happy, as the following list will show:

	Doric ft.
Diameter of columns.....	2 1/4
Axial spacing.....	7 3/16
Distance between faces of opposite colonnades.....	12 1/8
Distance between stylobates.....	11 11/16
Total cella width.....	19 1/12
Total cella length.....	37 1/4
Distance from east wall to first column	3 47/48
Distance from axis of west colonnade to west wall.....	4 25/48
Distance between column axis and flank walls.....	2 17/48
Clear interval of aisles.....	1 11/48

Not one of the given dimensions is divisible by the length of one or even one-half Doric foot.

The chapter dealing with the treatment of wall surfaces gives a detailed historical account of the conflicting ideas of earlier scholars who attempted to prove the existence or non-existence of the paintings of Mikon on the walls of what was then supposed to be the Theseion. If some of those theories and discussions now seem futile and sometimes ludicrous, it should be remembered that they were promulgated long ago by scholars without training in archaeological method as it is known to-day. The author's study of the waterproofing of the walls and of the stippled surfaces in the interior has led him to the conclusion that wall paintings on stucco were intended but were never executed. Such grave difficulties are involved in this explanation, however, that the problem can hardly be considered solved. The very fact that both waterproofing and stippling occur over large sections of the walls which cannot have been intended for paintings will seem

sufficiently important for other scholars to look for a more satisfactory solution.

Some pieces of the sima with the ornament plainly showing were discovered in the temple, and these are discussed in connection with other fragments found earlier. The profile is identical with that of the sima from the Temple of Ares. This confirms the author's conclusion that the two temples were designed by the same architect. A few sculptured pieces are included, only one of which, the head of Eurystheus from one of the metopes, can be assigned with some certainty to the Hephaisteion.

The excavation failed to reveal traces of a predecessor to the fifth century temple. That an earlier sanctuary had existed somewhere in the vicinity is, nevertheless, taken for granted. It would be better in this case not to go beyond the negative results of the excavation by postulating a predecessor. For it is highly probable that the cult of the two deities of manual craft, Athena and Hephaistos, was first housed on the Acropolis and later transferred to Kolonos Hill. The time when this took place is a matter of conjecture and is likely to remain so until the evidence from the other buildings in the Agora is available and can be integrated with the history of the whole city.

The problem of the date of the fifth-century temple is treated at length, and all the evidence from the excavation is marshalled in support of the early date now advocated by the author. The new evidence comes very largely from the ceramic finds, the study of which was contributed by Lucy Talcott. They fall into two categories. The sherds found within the cella, in the fill supporting the floor, provide the safest *terminus post quem* for the construction of the temple. Most of this earth had, unfortunately, been removed when the graves were dug, and the little that remained contained pottery so much earlier than the temple as to be of little value for dating. None of the sherds appears to be later than the first quarter of the fifth century.

To the second category belongs the pottery from various pits and pockets in the temple area that appear to have been covered over at the time of the temple construction. This material can be used only as confirmatory evidence, since it is obviously impossible to determine with complete certainty when a particular pit was filled up. Working chips of Pentelic marble, apparently from the temple, were found among the sherds, and it seems very probable that this pottery, too,



antedates the building. It would have been preferable, as a safeguard against future quibbling, to indicate the exact place of finding with each sherd. Without recourse to the excavation inventory it is impossible for the reader to know which of the catalogued pieces came from the interior and which from the outside pits.

Although a great deal of pottery was discovered in these pits, it does not provide evidence for exact dating, since the latest period indicated by the pottery is earlier than the earliest date proposed for the temple. None but the decorated ware lends itself to exact dating, and vases of that kind are likely to have been in use for some time before they were broken and discarded. It is always difficult to decide how much time to allow between the making and the breaking of a given vase. The latest definite date mentioned for the red-figured sherds is 470 B.C., and a few fragments are designated by the more elastic term, "early classical style." These constitute the basis for the author's statement (p. 150) that "we can only say that they were made no later than the middle of the century," and for the following assertion (pp. 153-154): "The analysis of the pottery found within the building shows that the record terminates in the fourth or fifth decade of the fifth century, about 460 or at any rate no later than 450 B.C." It is equally true, however, that so far as the date depends on the pottery the temple might have been built any time after 460 but not before 470 B.C.

There are some inscribed fragments among the pottery, and several of these have been identified as ostraka. Most of them are either so early or so uncertain as to be of little or no value for dating the building. Two handles inscribed with the name of Menon, one with a garbled demotic added, have been interpreted as ostraka of Menon of Gargettos, whose ostracism is mentioned by Hesychios. By a concatenation of inferences and conjectures, too tenuous to require discussion, a date for his ostracism is arrived at as shortly before 450 B.C.

By far the most important of the inscribed sherds is a piece of a kylix base preserving part of a name which may with good reason be restored as that of Dieitrephes, son of Nikostratos. Although his name does not occur on any other known ostraka, there can be no reasonable doubt that this is part of an ostrakon. Its restoration is due to A. Raubitschek, who identifies this Dieitrephes with the man whose statue, the

*vulneratus deficiens* by Kresilas, was dedicated on the Acropolis by Hermolykos, the son of Dieitrephes. The letter forms of the base indicate a date about the middle of the fifth century. Since the statue could not have been set up while Dieitrephes was still alive, his death presumably took place some time before 450 B.C., and Raubitschek now believes that he may have been killed in the Egyptian expedition in 458-454 B.C. The only evidence for his ostracism is furnished by the fragmentary ostrakon from the Hephaisteion, and we have no means of determining when it took place. Presumably his opponents failed to produce the requisite number of votes against him, since he is nowhere mentioned among the ostracized. If he was actually ostracized we should have to allow for an interval of ten years or more between his ostracism and the time of his death. In view of these uncertainties, there do not seem to be sufficient grounds for the author's statement that "the available evidence demands a date a little before the middle of the century" for the ostraka of Menon and Dieitrephes. The date of Menon's ostracism is unknown, that of Dieitrephes may have taken place considerably earlier than 450 B.C.

This is in no way intended as a refutation of the arguments for a mid-fifth century date of the temple. These are based very largely on a comparative study of architectural details, and no one is better qualified than the author to pass judgment on the chronological implications of such data. The evidence derived both from the pottery and from the ostraka, if it does not directly confirm the early date of the temple, at least does not contradict it.

The author discusses other indications of date, architectural, sculptural, epigraphical, historical and religious, and adds a full bibliography on this much disputed problem. Many references are cited for the early existence of the cult of Hephaistos in Athens, but not all of these apply necessarily to the cult housed in the temple on Kolonos Hill. There is no evidence to show that the torch race mentioned by Herodotos (viii, 98) and in *IG* i<sup>2</sup>, 84 had any direct connection with the Hephaisteion.

To the material evidence for its date the author has added his astronomical calculation based upon the direction of the temple axis as determined by the rising of the sun on the chief festival of the deity worshiped in the temple. For this purpose he has chosen the Chalkeia, celebrated on the last day of Pyanopsion, and the date derived in this



way is October 17, 449 B.C. If this argument be accepted, we must suppose that the chief deity was Athena, not Hephaistos. Despite the statements of some lexicographers to the contrary, there is abundant proof that the Chalkeia was a festival of Athena, in which Hephaistos was worshipped as a lesser partner of the goddess.

In addition to the Parthenon and the Hephaisteion the author includes the temple of Poseidon at Sounion and the Athena Nike temple in Athens among the Attic buildings whose axes may have been determined by astronomical observations. It may be pointed out as a weakness of this theory that the principle on which it depends is limited in its application to days of clear sky. A cloud at the east horizon on the morning of the festival would be sufficient to postpone the work on a particular building for a whole year, and in October cloudy and rainy days are by no means rare in Athens. In the case of the Athena Nike temple the sun was high above the horizon before it became visible at the temple site behind the Pelasgian wall. Since we do not know the height of this wall, it seems futile to engage in speculation about the exact day of the festival on which, according to the author's theory, the axis of the temple was determined.

The value of the treatise, however, should not be gauged by the reader's—or reviewer's—agreement or lack of agreement with the opinions expressed. It is essentially a preliminary study, and some of the conclusions will doubtless have to be changed before the definitive publication appears in print. In view of the present situation in the archaeological field scholars will be grateful to the author for presenting the results of his work so promptly.

Professor Dinsmoor is fond of figures, and much of the text has the superficial appearance of a mathematical treatise. No measurement is omitted that is likely to be of importance, and minor details are presented with minute descriptions and careful analyses. These data, together with an extensive bibliography covering all the important literature, constitute a working apparatus which makes it possible without visiting the site to gain an intimate acquaintance with the building.

The book deals largely with foundations. These have yielded so much of interest that the final publication will be eagerly awaited by students of Greek architecture.

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GREEK WALLS, by Robert Lorentz Scranton. Pp. xvi+194, 24 ills. American School of Classical Studies at Athens. Cambridge, Mass., Harvard University Press, 1941. \$3.00.

A serious gap in archaeological study has prompted this welcome work on an aspect of Greek civilization which the author rightly estimates as one of real importance. He emphasizes the significance of fortifications in Greek life, where military affairs were close to everyday existence. Equal to the military importance of walls is their value as "the most impressive works of engineering that the Greeks have left us." But it is with neither of these two aspects of walls that the book is concerned. Since the study of walls may be made from many angles and nearly all are virgin ground, the author has chosen to confine his attention in this volume to the styles of masonry, with the hope that stylistic classification may aid in establishment of chronology.

The *Introduction* mentions and evaluates carefully previous studies of walls, both the earlier general accounts and the later specific treatments of individual sites. Before proceeding to his classification, certain fundamental assumptions are considered. Since styles are not in general distinguishable geographically and material does not determine style (although it is admitted that it influences technique), neither location nor material affect chronology. (Yet we notice as the classification develops in the later chapters that certain styles do seem to be associated with localities). Dating is affected by "the problem of generations," so no attempt can be made to date on stylistic grounds "closer than within a 50 year period." The scope of the material treated is limited to fortification walls of Greece, the Aegean islands, and western Asia Minor, with the addition of a few terrace or grave monument walls which give fixed points for dating. The reviewer understands particularly well the practical necessity of omitting Sicily and Magna Graecia in this volume and looks forward to continuation of his investigations by the author when possible in that very significant region of Greek civilization. The justification for the stylistic approach to the study of walls is given in the passage from Aristotle (*Pol.* 1331a, 12), where he recommends "that care should be taken that the walls be an adornment to the town as well as useful in defense." The *Introduction* closes with one of the most valuable services rendered by the book, definitions of classification and terminology which are so

clear, logical, and practically applicable that they should become accepted and should, as the author hopes, help to clear the fundamental fog which has beclouded the study of walls. The fact that border-line cases which might be assigned to one of two classes make application of this terminology difficult and uncertain at times does not impair its usefulness.

Each of the four classes of masonry is treated in a chapter including characterization, evidence for dating, discussion of examples selected for their special problems in style or chronology, and chronological summary. The distinctions between Lesbian and polygonal and between trapezoidal and ashlar, new in the latter if not in the former case, are emphasized and strengthened, so that each style can be better recognized and dated. Lesbian is applied (following Aristotle) to masonry with curved joints; the surface is quarry or tool face; it flourished in the sixth century in the Aegean islands (it probably originated on Lesbos) and Asia Minor and was adopted in northern and east central Greece, but is conspicuously absent in the Peloponnese. Polygonal is restricted to blocks having a varying number of straight non-parallel sides, usually more than four, which meet at clear-cut angles; the surface is nearly always quarry face, occasionally tooled. The style was common in western Greece (where it probably was first developed) and the Peloponnese; originating in the early fifth century, it reached its height in the mid-fifth century, was diminishing in the late fifth century and was abandoned in the fourth century, save in the Peloponnese, with a tendency to coursing. Contemporary with polygonal comes trapezoidal which, though associated with both polygonal and ashlar and so the least clearly defined in both style and chronology, is distinct from both. The blocks are quadrilateral with two opposite sides (usually horizontal) parallel, and the other two not parallel and usually not vertical. Subdivisions dependent on coursing are now important to dating. Irregular trapezoidal runs at least throughout the fifth century and perhaps longer; isodomic begins in the last quarter of the fifth century (quarry faced through the first quarter of the fourth century, broached through second and third quarters of the fourth century) and by the late fourth century pseudo-isodomic has begun, but few examples of Hellenistic trapezoidal remain. Ashlar is reserved for blocks rectangular and usually uniform in size. It begins in irregular arrangement in the first half of

the fifth century, but by the last third of the century it is the usual isodomic, i.e., the ideal of Greek masonry. Surface treatment varies in the fourth century, and by the end of the century pseudo-isodomic and header and stretcher arrangements, which began in the Hellenistic cities of Asia Minor, were well established; through the third and second centuries complications of these styles and of surface treatment grow steadily more elaborate and archaism appears.

A number of walls are discussed and new datings proposed in the light of the results of this study, and following the assumption that "if a town is reported to have been besieged, it was protected by a wall. Unless there is good reason to the contrary, the earliest wall at a site is connected with the earliest reference, direct or indirect, to its fortifications." To mention a few: the walls of Peiraeus in nine periods, seven definitely associated with historical references; Thasos where several periods are clarified; Eretria with six periods and a new interpretation and dating of the two earliest; the Stratos wall made contemporary with the temple, ca. 314. For the Long Walls of Corinth a date ca. 395 when Corinth was an ally of Athens is suggested as more probable than the excavator's fifth-century date, on the grounds that Corinth was more apt to imitate the Athenian Long Walls when an ally than an enemy of Athens, especially since Athens as a naval power would have no armies to intercept her enemies' communications between town and port. But remembering, as Scranton advises, the character of the military power of each city, it is hard to think of Corinth apart from her navy and not to wonder whether she would not rather have followed the example of her rival when she was most in fear of her. Since the argument from probability may work both ways, the reader may reserve acceptance of this as well as of the ingenious new reconstruction of the pre-Philonian porch at Eleusis and its dating later than by Kourouniotes; of the dating of the Arcadian Gate at Messene not before 300 B.C. because of no analogies in plan earlier (we need a fuller study of plans); and the very early dating (eighth century) of the Dema from Parnes to the Aigaleos.

The *Summary* gives a well condensed account of walls by periods: the archaic down to 480, then 30-year periods to 300, 300-200, 200 and later. This forms a most useful cross reference when used with the summaries of the chapters on masonry styles.

There follow three appendices. I deals with Dry Rubble Walls and identifies as fortification walls two and possibly a third formerly unidentified: at Hyriai above Aulis, in the pass between Helikon and Parnassos on the Delphi-Livadia road; at Palaia Thevas near Haliartos. II treats of the Indented Trace and is the only military aspect or element of plan which the book considers. It serves to indicate that a further study of the military might be combined with the stylistic to considerable profit. III, the Lists of Walls by style, with subdivisions by coursing and surface treatment, though it makes no pretense of completeness, is one of the most valuable contributions of the work. In addition to the classification, the list gives the relation to other walls on the site, the date when known or established with probability, and principal bibliography. It may be ungrateful when so much is given to ask for more, but the addition of a further identification of the wall than the mere site name (e.g., at Corinth a distinction between the walls of Acro and of the lower town) would sometimes avoid confusion, and mention of the material would have been appreciated. The Index is full and well arranged for easy use.

The method of classification and the results in general deserve commendation and acceptance and are not seriously affected by a few details which it may be helpful to mention. As noted above, there may be some difference of opinion in classification of styles; the writer knew the whole wall, the reader must usually judge from the photographs offered in the references and should perhaps not judge, yet he may see patterns differently (e.g., p. 159, A1, 12 ?curved; p. 160, A2, 13 more polygonal or trapezoidal; p. 161, A2, 21 polygonal rather; p. 161, A4, 12 more nearly dry rubble; p. 168, C1, 32 nearly ashlar with stacks in Wrede, pl. 88; p. 173, C7, 3 ashlar with headers and stretchers in Wrede, pl. 104-6; p. 182, D11, 1 no curvilinear joints as on p. 35; p. 185, E 30 no tendency to Lesbian shows in Wrede, pl. 89). Occasionally there is discrepancy between text and list in dates (p. 162, B1, 14—470-450 but on p. 56 we read 450-445; p. 167, C1, 13—Middle Cent. V, but on pp. 82 and 85 we read late fifth century). Carpenter is credited on p. 86 with dating the gate towers of Acro-Corinth at the end of the fifth century, but on pp. 8, 11, 16 in Corinth iii, 2 Carpenter speaks of "not earlier than 400 B.C." "Attic parallels all fourth century" and finally "late fourth century." On p. 178, D4, 7 we read "Wrede says

ca. 330 B.C. but gives no evidence"; however on p. 30 of *Attische Mauern* we read that a fragment of stele dated by style "nach 340" lies just to the east and belongs apparently to the grave terrace. On p. 179, D6, 3 the grave of the Lacedaemonians in the Kerameikos is dated 410 B.C. whereas Wrede, pl. 49, gives 403 B.C. from Xenophon. The Sounion terrace (p. 177, D2, 34) is dated ca. 425-423 B.C., apparently following Wrede, who notes that it is contemporary with the temple; if this is so, Dinsmoor's new date for the temple, 444-440 B.C., might be considered. Which is the correct spelling: Antidoros on p. 161, A3, 1, or Antidosis on Wrede, pl. 101?

One is disappointed, too, not to have more discussion of the walls on the Pnyx from one of its excavators, even if the full publication must naturally come elsewhere; at least reference in the lists to the photographs published in *AJA*. 1938, p. 158 would have been helpful. The matter of illustration is the most serious limitation of the book; it is impossible to use the book without a very well-equipped library at hand. The explanation of the author, expense, can be understood, but it is indeed unfortunate to have had to handicap so seriously what would otherwise have been doubly valuable. Even with the restrictions, one cannot help wishing that a few others had been added to the 24 photographs which illustrate the styles (admirably one is glad to say), but no more. How much would the argument concerning the walls of Eretria have been strengthened by an illustration of the earliest wall (p. 161, A4, 7), not shown by Pickard; the same is true of Acro-Corinth, where Scranton bases an important interpretation and dating of the walls (pp. 56-7) on a piece of wall overlooked by Carpenter. Why not show us this wall? We are grateful for the appreciative account of the unsurpassed walls of Messene, so neglected in print, but a view of them would have added tremendously to the points made, or at least reference to some of the fine views in recent picture books of Greece.

Finally, we cannot close a grateful appreciation of a worthy and much-needed start on an important new field of study without expressing the hope that the author will continue his work, keeping in mind the very importance he himself stresses in walls—their engineering. May we hope for a study of the *whole* wall, of which the surface patterns alone (even in the only hint at three dimensions on p. 83) have been analyzed, and more from the aesthetic than the practical point

of view. Yet the author recognizes at the beginning the fundamental practicality of a wall.

MOUNT HOLYOKE COLLEGE      LUCY T. SHOE

A HISTORY OF MESSENNIA FROM 369 TO 146 B.C., by *Carl Angus Roebuck* (dissertation, private edition, distributed by the University of Chicago Libraries, Chicago, Ill.; 1941. Pp. vi+128, one map.

Following upon extensive work in Messenia by M. N. Valmin and the Swedish expeditions, and the spectacular beginnings of prehistoric excavations by the University of Cincinnati under Blegen,<sup>1</sup> Larsen's pupil, C. A. Roebuck, has completed a mature job on the second period of Messenian freedom. Roebuck's dissertation will be consulted not only by historians, for whom it is primarily intended, but also by archaeologists. The author knows Messenia intimately from repeated explorations: in his first chapter, in two appendixes, and a useful map, he has laid out its topography with ample references. Cults too are given their proper place (pp. 34-37) as part of the cement which helped to bind firmly together a state created all at once out of the following materials: a certain degree of geographical unity; good soil; hostility to Sparta; shaky foreign support; and whatever was left (a surprising amount) of national feeling after more than three centuries of Spartan domination punctuated by two unsuccessful revolts and the Athenian occupation of Pylos, the state in exile at Naupaktos, and its aftermath. The Messenians must have had to learn a good deal, but the natural Greek aptitude for politics kept the state together: for over a century there is no sign of a split, and after that century the property struggle, which culminated in a slaughter and a broadened franchise, was so to speak only normal. In the first hundred years or so, however, the ex-perioeci and ex-helots had pursued a foreign policy which was not heroic, but was well calculated for Messenian ends during the state's first century: they succeeded in expanding it to the natural frontiers. In the second century, foreign policy was more difficult still, and Messenia, which probably could not put in the field very many more than 2500 men and 500 horses, became little more than a pawn on a board where the big pieces were the Achaean and Aetolian Leagues, Macedon, and finally Rome. By 146 the city Messene, which had come to control, like Thebes in Boeotia, the lesser poleis of Messenia, had been deprived of all of them. Rome brought material prosperity if nothing better.

<sup>1</sup> Recent Mediaeval studies too should not be overlooked: e.g., S. B. Luce, "Modon—a Venetian Station," in *Studies in Honor of E. K. Rand*, New York, 1938, pp. 195-208.

At the moment the book is interesting above all for its remarks on fortifications. Roebuck found reason to believe that not Ithome alone with the city at its foot, but two other heights and three watch-towers as well, were part of Epaminondas' plan of encircling Sparta.<sup>1</sup> Epaminondas may well emerge as the greatest of Greek military engineers as well as the great tactician.

One lesser problem for the time when more can be added to these good Messenian studies: the [π]όλις Πυλάνων which appears in the midst of the Andanian list of names and amounts, *IG. v, 1, 1532*, still awaits identification (latest edition, M. N. Tod, *BSA*, xxviii, 1926/7, pp. 151-157; the text can be improved still further, and parts of a decree on the other side can be made out). It seems unlikely that a polis of Messenia should have disappeared completely except for this one reference.

HARVARD UNIVERSITY      STERLING DOW

HARVARD STUDIES IN CLASSICAL PHILOLOGY, Volume LI (dedicated to William Scott Ferguson). Pp. 535, pl. 1. Harvard University Press, Cambridge, 1940. \$2.50.

ATHENIAN STUDIES PRESENTED TO WILLIAM SCOTT FERGUSON (Harvard Studies in Classical Philology, Supplementary Volume I). Pp. 535, pls. 10; 2 figs. in text. Harvard University Press, Cambridge, 1940. \$4.00.

It is part of the good fortune of an assignment to review these volumes that their occasion forearms the reviewer with a perfect excuse for the inadequacy of the best he can do: a privilege so desirable as this task could not be declined. Next best to the pleasure and honor of an intimate share in the tribute paid to Professor Ferguson is to be one of those trusted to give some hint of its significance.

Significant, certainly, the affectionate pains

<sup>1</sup> Cf. *CW*, xxxv, 1941/2, p. 106. Besides these outworks, Roebuck suggests that the fort on the island of Prote also may have been part of the great plan; but as he remarks, this fort may have been built by the Athenians when they took Pylos. It is likely that the Athenians would feel the need of some protection for their force on Prote. Of course all these walls need more study.



lavished upon it: over few such conspiracies can more trouble have been taken. There is so much elaborate work in the contributions, and the shape of the whole offering bears so much evidence of careful planning. The first part, commemorative, takes the simplest and happiest way of recalling scholarship's double debt to Ferguson: after the bibliography of his writings come the contributions of scholars trained by his teaching. This group of essays has no set nexus, the wide range of the *τροφεῖα* making its own telling point. The second part, congratulatory, international, has a thread of special dedication: each contributor has devoted himself to a subject in Ferguson's favorite field, the history and institutions of Athens. Needless to say, any due account of the contents of the two volumes would be beyond my space (and competence); but no deficiency could have excused the shabbiness of reviewing these essays "by title."

The first paper of the first part, *Some Byzantine Accounting Practices illustrated from Georgian Sources*, by Robert P. Blake, is a thoughtful study of the benefactions to an Athonite monastery recorded in the postscript of a Georgian MS. of the eleventh and twelfth centuries at Tiflis. The entries, apart from the interest of their method and terminology, are important for the picture they give of the resources of a great monastery, and for their general bearing on the economic difficulties of the Byzantine empire (they show us that inflation had already begun in the eleventh century). In *Some Early Byzantine Tax Records from Egypt* A. E. R. Boak publishes four papyri of the early fourth century from Karanis, instructive for the light they throw on (1) the relation of the village "headmen" to the komarchs proper; (2) the supplying of grain to the remount department at Alexandria; (3) abuses in the komarchs' assessments of tax quotas (a sudden outburst of indignant comment follows a dry list of assessments); (4) the manner of collecting the pistikion levy, the nature of which nevertheless remains obscure. Boak accepts Bell's opinion that it consisted of grain, but frankly points out the objections to this view, the chief being that the amounts are measured by litrai, not by artabas. I cannot help guessing that the *πιστική νόστος* of the New Testament (*John*, 12, 3; cf. *Mark* 14, 3) and the probably Greek and probably botanical place-name Pisticii (South Italy) have some light to shed on this problem, and my colleague H. F. Lutz has encouraged me by remark-

ing how close the word is to one form of the Arabic name for the pistachio (*fustuq*); he suggests that *πιστικίον νεαρόν* means pistachio nuts not fully ripened or fresh pressed pistachio oil. Boak and Bartlett note that seeds of *pistacia vera* were found in the houses at Karanis (*Karanis, Univ. Mich. Studies* 30, p. 88). Thomas A. Brady (*A Head of Sarapis from Corinth*) corrects Amelung's interpretation of the ancient descriptions of the "blue-black" cult statue made by Bryaxis for the Serapeum at Alexandria. So many heads of Sarapis derivable from Bryaxis' type show traces of gilding that we can hardly doubt that the face of the original was overlaid with gold.

Robert Vincent Cram in *The Roman Censors* undertakes to establish the *fasti* of this office; his annotations of the list criticize the hyperscepticism of Beloch and (very conveniently) record the particular activities of each college; these are also charted in a general conspectus. A statistical comparison of *gentes censoriae* with *gentes consulares* illustrates Cram's conclusion that the patrician families, except in the Gracchan period, retained a remarkably firm grip on the censorship. Its political importance—at least its importance to ambitious men—must therefore be minimized. *The First Enneoteric Delian Pythais IG, ii<sup>2</sup> 2336*, by Sterling Dow, publishes his scrupulous new text of a document important because its lists of contributors to a Pythais are a guide to the magistracies of Athens during seven successive years (103/2–97/6 B.C.) of a period critical for Athenian institutions. This edition presents "six new fragments, a new join of old fragments, and various new readings and restorations." A commentary is promised. Charles Edson's *Macedonia* is a study of several inscriptions. (1) A hitherto unrecorded dedication of Philip V at Pella corroborates other evidence of the devotion of the Antigonid kings to the cult of Herakles Kynagidas as their ancestor. (2) An inscription in Saloniki, thought to confirm Diodorus' assertion that Philip II was ranked with the Twelve Gods, contains no mention of this king. (3) In the church of Saint Demetrios at Saloniki the writer retrieved an inscription which adds to the known cults of Thessalonica one of Zeus Eleutherios and Rome, founded, it would seem, as early as 148 B.C. Later is the cult of "Rome and the Benefactor Romans," which must date from soon after the battle of Philippi, by which Thessalonica escaped pillage and gained the status of *civitas libera*. (4) The "Divine Fulvus" in inscriptions of the



third century A.D. can only be Fulvus the son of Antoninus Pius (not Antoninus himself).

In *Septimius Severus, Roman Bureaucrat*, Mason Hammond bases a new and kindlier understanding of this emperor's policy on a very careful and searchingly critical review of the sources for the history of his life before his elevation. In slighting Italy and the senate he applied the lessons of his bureaucratic experience; it is unjust to impute to him the malice of a Punic outsider (his family had old and distinguished connections with Italy), or the military bias of a rough man of action (he was by no means unlettered, and his early career had been almost more civil than military).

J. A. O. Larsen's *The Constitution and Original Purpose of the Delian League* endeavors to read a policy of "collective security" into the history of the half-generation following Plataea. "Between 479 and 462 . . . the strongest forces in Greek inter-state politics were Panhellenism and the national war against Persia." He stresses the constitutional equality of the members of the Delian League, in which Athens was cast for a disinterested rôle, and maintains the reality of a continuing Hellenic League, to which the Delian was ancillary (a sort of executive sub-league, for naval defense). Nathan Marsh Pusey (*Alcibiades and τὸ Φιλόπολι*) sets himself the easy task of showing that in Athens patriotic devotion to the city state fell short of Zimmern's provokingly high-flown description of the ideal of it, and the more difficult one of proving that "our notion of patriotism as a feeling distinguished from mere love for a physical city had small power to influence Greek citizens for good or bad." Pericles gives him some trouble. It must be said that this paper, though it strains patience, is an able piece of work, admirably written. In *Notes on Athenian Public Cults*, Robert Schlaifer collects the evidence of special taxation (of limited incidence) for the support of public cults; argues that two priests of Asclepius, Demon and Euthydemus, cannot be counted in the tribal cycles; defends Dow's dating (229-7 B.C.) of a prytany decree for the tribe Aeantis; accounts for "irregularities" in the tenure of priesthoods of tribal heroes (priests alien to the tribe) by maintaining the pre-existence of gentile cults which the tribes in question adopted; shows that *IG* 2 24 did not create the priesthood of Athena Nike but was a democratic measure throwing the office open, and adopts an explanation of its defective formula communicated to him

by Dow (secretary and prytany are missing because they were entered separately on the sculptured head-block, now lost).

Vincent M. Scramuzza measures the zeal of the Emperor Claudius for the welfare of his provincial subjects by the astonishing number and variety of his benefactions to which inscriptions testify (*Claudius Soter Euergetes*). Stanley Barney Smith's *The Economic Motive in Thucydides* is a refutation, judicially objective and guarded, of Shotwell's unaccountable charge that the historian "missed altogether the economic forces" of his subject. Thucydides was not an economist, but he had been an enterprising capitalist, exploiter of Thracian mines; the economic aspects of political history were not hidden from him, and his mind, one of the most thoughtful in an age of inductive reflection, was not incapable of generalizing economic truth. This is evident in his account of early Greece, his diagnosis of the causes of the Peloponnesian War, and (above all) in his comparisons of the Athenian empire with the Peloponnesian League. Especially just is Smith's insistence on Thucydides' grasp of the idea that wealth is strength. This, he claims, underlies the very passage most harshly blamed for obtuseness: i, 23, 6. The Spartan motive for war is there truly discerned, fear of the financial strength of Athens, so formidably advertised by Pericles' program of public works.

What part did Athens play in prehistoric Greece? What did the historic owe to the prehistoric Athens? Carl W. Blegen's *Athens and the Early Age of Greece* (first paper of the second part) considers these questions in particular, emphasizing, as to the first, the contrast between the unimportance of Athens in legend and its importance throughout the prehistoric period: as to the second, suggesting that Athens' escape from a Dorian invasion had not a little to do with the brilliance of her later development. But the chief contribution of the paper is a general view of the Greek character and genius as a fusion of elements contributed by the three racial stocks successively dominant, the Neolithic people of the land, the Mediterraneans of the Early Bronze Age, and the Greek-speaking Aryans whose occupation began in the middle Bronze Age.

Denial of a Minoan intrusion on the mainland, though so many opinions incline to it, is not without difficulty. The first phase of Late Helladic art is Cretan enough in character to make the burden of disproving Cretan settlement no very

light one, and, recited in America, the favorite arguments of disproof lose something of their cogency: beards, weapons, traditions of architecture—with these might we not “prove” that no forty-niner can have come from New York? Add to these embarrassments the tradition of a Cretan thalassocracy and the hints, chiefly in the Minotaur and Nisos legends and the place-name Minoa, of Cretan aggression in the Saronic gulf. At least these secondary difficulties are resolutely faced by George E. Mylonas in *Athens and Minoan Crete*. He makes some shrewd points: the supposedly Cretan character of certain Attic sanctuaries is an illusion; Thucydides does not say that the thalassocracy of Minos reached beyond the islands, nor do the legends say that Minos held Athens or Megara; the Minos legends, anyhow, cannot prove that Crete imposed Mycenaean civilization on the mainland, for part of the legends is their chronology and the dates fall too late in the Bronze Age. He invites us to set the time of conflict between Crete and the mainland in the early Iron Age, when Crete was strong again and piracy flourished.

Georges Daux (*Athènes et Delphes*) surveys Athens' relations with Delphi: rather tardily begun, not warmed by any devotion of the Athenian masses to Pythian Apollo, strained in two great crises by the hostility of the oracle—yet on the whole peculiarly close and significant. No Greek power made more of its amphictyonic role than Athens; no influence did more to exalt the glory of Delphic Apollo than the imagination of Athenian poets and artists. This essay is followed by a useful index of the pertinent Delphic inscriptions. Malcolm F. McGregor's important paper declares war on its own title, *The Pro-Persian Party at Athens from 510 to 480 B.C.*, undertaking to show that after the expulsion of Hippias there was no seriously medizing faction at Athens: both the Alcmaeonidae and the conservative aristocrats are to be acquitted of treason, and the Pisistratid remnant may be given the benefit of a doubt. His most cogent arguments are those against Walker's opinion that a pro-Persian coalition sabotaged the Athenian part in the Ionian revolt; as McGregor proves, Athens did all that her resources and the opportunity allowed. It is not quite so easy to agree with his interpretation of the phase of Athenian politics which followed the Ionian revolt (as a spell of entirely hypocritical appeasement). McGregor's defense of the Alcmaeonidae, his shadiest clients, does at least succeed in reducing

to very little the evidence against them; but surely his exoneration of Cleisthenes from any connection with the medizing embassy sent to Sardes after his recall deals arbitrarily with Herodotus v, 73? Can one square with that chapter the writer's fundamental assumption that an alliance with Persia was *at that time* (about 507 B.C.) unobtainable without an undertaking to restore Hippias? Is it objective, moreover, to attribute to Cleisthenes foreknowledge that the Athenians would refuse to give fire and water, when we have testimony that a committee of Athenians deliberately judged that the Persian demand stood a chance of acceptance?

W. Peek (*Die Kämpfe am Eurymedon*) offers a trenchant defense of Plutarch's account of the battle of Eurymedon (*Cimon* 12 f.) against Uxkull-Gyllenband's strictures. Plutarch is not to be lumped with Ephorus-Diodorus because he puts the sea fight before the land fight: the contrary order is nowhere recorded, for the language of Thucydides is not on this point definite, and the epigram upon which (in its most corrupt text) Uxkull especially relies has nothing to do with the battle of the Eurymedon, describing the fight in Cyprus in 449 B.C. It is idle to rake for traces of Diodorus' bad source (Ktesias ultimately?) in Plutarch's sober story, which is altogether, at variance with Diodorus' romantic version (and is a more likely tale than Uxkull's own reconstruction of the campaign). Uxkull has not shaken Meyer's proof that Kallisthenes was Plutarch's source. In an appendix Peek offers a new restoration of the epigram on Maeandrius, commander of the Samian flotilla in this battle.

Of quite extraordinary interest is H. T. Wade-Gery's *The Peace of Kallias*. If it does not fully vindicate from all suspicion one of the most dubious pages of history, Diodorus' record of a formal treaty in 449 between Athens and Artaxerxes, it performs what is miracle enough—confirms it: shows that there is a matrix of plain fact or reasonable construction into which the Peace of Callias can be fitted, in itself a perfectly realistic pact of adjustment and non-aggression. It is therefore not incredible, though Thucydides is silent about it, Kallisthenes doubted its ratification, and Theopompus held the document recording it to be a forgery. Wade-Gery's most impressive “join,” if the word may be borrowed, is with the Athenian tribute lists. That there was a year without tribute is not universally admitted (see Gomme, *CR.* 54, 1940, pp. 65–67, Dow, *AJA.*

1941, p. 642), but granted this, the blank seems to coincide with the Diodoran date of the peace, a clause of which (apparently) recognized Persia's right to tribute from the "autonomous" cities. Wade-Gery is able to show why Athens was forced to reimpose her own levy. But it could be objected that the same set of facts are equally well explained by a half-sceptical theory expanded from Kallisthenes' hint: terms were drafted, but Artaxerxes broke off negotiations, to his undoing, forfeiting the Athenian concessions and finding himself too weak to prevent Athens from *de facto* enforcement of his own. There are other difficulties. Is it captious to wonder how the satraps, from behind the "demilitarized zone" created by the "non-aggression clauses," were able to rake in the revenues due to them? Anyhow, Thucydides' silence about the Peace of Callias is all the stranger if in fact it introduced into Athenian imperialism an abuse worse than any which he recognizes, this cynical condominium and double tribute. Was he shielding Pericles? But it must be allowed that Wade-Gery does a good deal to blunt the force of these objections: indirectly, by accounting neatly and easily for ancient scepticism about the treaty with Artaxerxes; directly, by showing how well it squares with Thucydides' account of Tissaphernes' troubles to assume that Epilycus' treaty with Darius the Bastard was a mere renewal of the Peace of Callias.

There is a happy pertinence *ad hominem honoratum* in the subject of William Bell Dinsmoor's contribution *The Tribal Cycles of the Treasurer's of Athena*, a corroborative postscript to what he has written on tribal rotation under the inspiration of the discoverer of Ferguson's Law. For the treasurers of Athena the periods of reversed rotation were from 443 to 429 B.C. (Ferguson's first period, confirmed and extended backward by Meritt), 416 to 413/12, 411 to 353/52 (Schweigert's dating of *IG*. ii<sup>2</sup> 120, permitting Dinsmoor to add six years to his own extension of Ferguson's limit). Incidentally, the first document of the epistatai of the statue must be dated in 447/46 B.C. (thus the latter was begun simultaneously with the Parthenon). *IG*. i<sup>2</sup> 255a, in a new restoration conforming to Ferguson's date 405/4 and incorporating suggestions of Meritt, becomes the earliest intimation of a combined board of treasurers, and helps to date fragment xxix of the accounts for the Erechtheum in 407/6 definitively; xxvii and xxviii, thanks to Broneer's discovery and Schweigert's study of xxviii, can now be

placed in the fifth century (406/5, 405/4). Homer A. Thompson (*A Golden Nike from the Athenian Agora*) gives the first persuasive explanation of the puzzling grooves on the bronze head Agora B 30—slots to hold plating. These were filled up with bronze when the gold overlay was taken off to be melted down: at a later time, the head was regrooved and replated with gilt silver, traces of which remain. The letter *xi* engraved on the back is a storage mark, put on after the first stripping and before the restoration. Thompson's argument that the head once belonged to one of the "golden" Nikai completed about 434 B.C. is very ingenious, but its weight depends on two postulates not very easy to grant, that the treatment of the breast necessarily implies wings on the shoulders and that the style fits the late thirties of the fifth century. Surely the hair-knot as he quite rightly restores it (perfectly erect) is not in the taste of that time? But some fifteen years later than the completion of the golden Nikai the erect "lampadion" appears in vase-painting (see, e.g., *FR*. pl. 109, 2), and thus Thompson may well be right in dating the head in the fifth century and in supposing that it lost its first plating of precious metal in the crises of 406–404 B.C. As ingenious as the proposed identification, but too closely bound up with it to be independently probable, is the writer's theory that the restoration and replating was done at the expense of Alexander in 336 B.C.

A. W. Gomme's *The Old Oligarch* is characteristically shrewd and pungent. The root of all other difficulties of the oligarchic squib on "The Government of Athens" is the difficulty of taking it seriously. It is not a sophistic exercise, being too uncouth and maladroit for that; but it is academically vague, disclosing no aim or occasion, and its cynicism is so recklessly truth-distorting that allusions by which the treatise might be dated are hard to pin down. On the whole, it seems to fit best the years between 420 and 415 B.C. "If this is right, we can believe that the livelier passages were borrowed from the *Wasps* perhaps and vv. 1121–1130 suggested the whole," though as Gomme points out, Attic comedy is the subject of the Old Oligarch's coolest lie. The tract's chief significance is in the unconscious failure of its conscious irony. May I append an archaeological parallel to the crux in 1, 13 without claiming that this makes the passage more than a little clearer than Gomme finds it? There the Old Oligarch surprisingly states that athletics and

music have been abolished as "bad form" (οὐ καλόν) in a democracy; he adds that the common man is glad enough to sing and run races if a gymnasiarch or choregos will make it worth his while. There is a strangely exact correspondence to this in Attic vase-painting: towards the end of the fifth century B.C. the athletic and musical subjects reflect private life less and less, public ceremonies more and more; at the same time the frequency of καλός-names diminishes. The Greek writer cannot be referring to any statutory ban on private athletics and music; it is perhaps his meaning that the demos had managed to take the gilt off the aristocratic youth of Athens: the accomplishments that made a Leagros or Glaukon an idolized καλός are nothing nowadays, eclipsed by the subsidized brilliance of the tribal contests. In this interpretation, καταλέλυκεν is a jaundiced exaggeration, but not beyond the Old Oligarch's limit and καλόν becomes a neat enough hit of that verbal smartness for which Gomme gives him rather less than due marks.

A fragmentary stone found during the reconstruction of the Nike bastion is interpreted by Benjamin D. Meritt (*Athens and Carthage*). His restoration incorporating *IG. ii* 47 retrieves a historical document of great interest, recording hopeful negotiations between Athens and the Carthaginian generals in Sicily in 406 B.C., year of false hopes. Though it takes the more difficult side of a controversy and is bound to provoke dissent, John H. Finley's *The Unity of Thucydides* is one of the most conspicuously able and impressive contributions to this collection, a very finished piece of thinking and writing. His case: the *History* of Thucydides is in a state incomplete, of course, but not incoherent or even tentative; what we have is a fragment of a draft nearly final so far as it goes, written in a practically continuous spell of effort according to a settled plan and expounding Thucydides' mature interpretation of the whole war. His method: examining the leading ideas of the sixth and seventh books, he draws out from them three lines of thought on which he finds all the rest of the work to be strung: the magnitude and decisiveness of the Sicilian expedition; the paradoxical course of the war; the ruinous faults of Athenian democracy. These bare hints do no justice to the penetration and thoroughness of the analytical part of Finley's study; whether the unity revealed by it is a perspective, or a case of mind, is the question for his readers. The weakest block in the foundations of his argu-

ment is not of his own cutting: the over-subtle interpretation of Thucydides' straightforward claim of ἀκριβεία, inherited from Grosskinsky and Patzer.

A note by Robert J. Bonner on *The Use of Hemlock for Capital Punishment* discusses the date of its introduction at Athens and touches on the evidence of other modes of execution for certain crimes. In *Studies in Historical Literature of the Fourth Century*, contributed by Herbert Bloch, some new light is shed on the politics of Androtion and on the style and tone of his *Atthis*, a new fragment of Theophrastus' *Nomoi* is produced, the relation of that work to Aristotle's *Politics* and *Athenaion Politeia* is examined, and in the course of an adroit and lucid survey of the controversy about the authorship of the *Hellenica Oxyrhynchica*, the writer presents his own sceptical view of the question: this work cannot be attributed to any namable writer. Its Thucydidean argument fits Cratippus no better than it fits any other known historian of the fourth century. Theopompus, though Laqueur has rallied to him, is the least likely claimant; quite decisive against him is the pedestrian style of the papyrus, the opposite of Theopompus' ranting extravagance. Among the many reasons for denying it to Ephorus (not writer of this history but borrower from it) one especially cogent is that the vocabulary is subject to taboos which Ephorus does not share. It is not a fragment of Androtion's *Atthis*, the formulas of which do not appear, and cannot be restored. The author of the *Hellenica Oxyrhynchica* must have been mentioned in Lysimachus' monograph on the plunderings of Ephorus, but as Porphyry's recital of Lysimachus' list of the plundered is incomplete, Jacoby's attribution to Daemachus, one of the victims named, being uncorroborated by anything else known about him, is not acceptable.

Arthur M. Woodward (*Two Attic Treasure-Records*) argues that *IG. ii* 1414, an inventory of the Treasurers of Athena preserved in the British Museum, is the lower part of the lost inventory for 385/4 B.C. (1407). He makes many improvements in Kirchner's texts of both the documents discussed in this paper, the second of which is the inventory of 341/0 (1455, to which Woodward adds 1444). A join between *a* and *c* of 1455 enables him to recover the order of its fragments (*a*, *c*, *b*), and to recognize this combination as the third column of its stele; from the second column is 1444. He points out that as the



pertinence of 1455 *b*, mentioning property of The Other Gods, is sure, Lehner's date for the reincorporation of their board with Athena's, after 340 B.C., is too late. His own date for this change is 346/5.

In *The Date of Isocrates' Areopagiticus and the Athenian Opposition* Werner Jaeger gives cogent reasons for rejecting the generally accepted dating of this work (after the Servile War, about 355 B.C.). True, it describes Athens as at peace, but the language in which Isocrates paints the apparent security of the Athenian empire could not have been used later than the eve of that disastrous war, which broke out at the end of 357 B.C. or early in 356. Late in 357 is the probable date of the speech, fixed by allusions to two events of this year (the alliance of Olynthus with Philip and the victory in Euboea). Thus, since the work is not a diagnosis *post mortem* of the ills of the second Athenian empire, its insight into the unfitness of unbridled democracy for empire is deeply interesting: how did Isocrates come by his point of view? His program must have owed something to the pessimism of the frustrated soldier-statesman, Timotheus, his pupil, but more to his own mentor, Theramenes. Not the least importance of this speech is in its confirmation of the tradition associating Isocrates with Theramenes; "the fate of Theramenes' ideas after his downfall now appears in a new light, and a perfect historical continuity in their transmission and development becomes visible to us."

William Linn Westermann's offering *Athenaeus and the Slaves of Athens* is nominally a correction of Ferguson's estimate of the slave population of Athens in the fourth century B.C.; really, it is a loyal and very vigorous defense of Ferguson's attitude to the evidence. Although Athenaeus' testimony that slaves outnumbered free male adults as more than twelve to one is definite, documented, and not uncorroborated, distrust of it is justified and Ferguson's low reckoning (that slaves no more than equaled free) errs only in being not low enough: say rather that the slaves amounted to one-third or one-fourth of the population. Very effectively, Westermann goes directly to the one corroborative item in Athenaeus' statistics of Greek slavery that can be put to the test of physical possibility; if the figure of 470,000 for Aegina is unbelievable, what credit has the rest? Not all Westermann's points are quite so telling as this, or as the modern instances to which he appeals. It is not quite perfectly clear that Xeno-

phon in the *De Vectigalibus* "thought of the slaves in terms of about a third or quarter of the total population," nor that such a proportion is indicated by Thucydides' count of the slaves who deserted during the eight years of the Decelean war (at a figure perhaps roughly equal to the total of citizens at the time of the *De Vectigalibus*). And, indeed, though nothing can make credible the number cited from Aristotle for the slaves of the Aeginetans (not far from double the population of congested Malta at the last census!), it is not quite just to make the size of their island the only consideration. We can scarcely save Aristotle's face with the stevedores of Naucratis, but at the height of their maritime prosperity the Aeginetans must have had many slaves for whom they did not need to find room on Aegina.

In *Les rapports d'Athènes et de l'Aitolie au III<sup>e</sup> siècle avant J. C.*, R. Flacelière charts, with the help of Delphic inscriptions, variations of temperature in the warm relations between the most and the least civilized powers of fourth-century Greece.

Who was the mother of Philip V of Macedon, Pthia or Chryseis? The death and burial of this controversy is announced by W. W. Tarn (*Pthia-Chryseis*). He rejects the arguments of Dow and Edson, that this king was not the son of Pthia, the lawful consort of Demetrius II, but of a concubine named romantically out of Homer, but he admits their disproof of his own thesis that Chryseis was the adoptive and not the natural mother of Philip. In fact, as with their concurrence he now discerns, Pthia the wife and Chryseis the supposed concubine are one and the same person. The problem of the next paper, *Archon Diomedon*, by the lamented dean of epigraphic studies Johannes Kirchner, is solved in the opposite way, as a case of mistaken identity. We must distinguish two archons Diomedon: the first in 241/0 (as the decree from Salamis settles), the second in 231/1 (Dinsmoor's genealogy of the scribe Phoryskides, determining his deme past dispute, determines the year).

In *ΑΜΦΙΘΑΛΗΣ* Louis Robert more than trebles Oepke's collection of inscriptions in which ἀμφιθαλής (or kindred word) appears in a religious connection. Often a specific agonistic function is connoted: it was the duty of the "child with both parents living" to cut and bring in the wreaths for the victors. In all cases where the child's rôle is clear to us it has to do with sacred foliage, implying the play of ideas θαλλοί-θαλλεῖν.

Four new fragments of the famous Athenian inscription in honor of Julia Domna were retrieved by Broneer; James H. Oliver (*Julia Domna as Athena Polias*) adds two more, one of them of great importance for the general tenor, for it makes a join which permits Oliver to conclude that the honors paid to the empress did not stop short of identification with Athena Polias.

UNIVERSITY OF CALIFORNIA H. R. W. SMITH

SENMEDELTIDA PROFANT SILVERSMIDE I SVERIGE I, by Carl R. Afugglas. Pp. viii+168. 80 figures; 11 plates; 12 pp. of bibliography; 2 indices; résumé in German. Wahlström & Widstrand, Stockholm, 1942. Kr. 20.

This book is primarily a publication of the silver beakers illustrated in the plates—the “cup of King Karl Knutson” at Ängsö castle and the Trolle cup. An introduction sketches the earlier mediaeval silverwork in Sweden, reviewing the literary evidence and cataloguing archaeological finds. Noteworthy in the former category are occasional mentions of imported plate, “de opere parisiensi,” “de opere rutenorum” (Russian), and even “de opere pragensi.” The general period of the beakers reproduced in the plates is fixed indirectly by the close resemblance of the Ängsö example to a lost cup once owned by King Karl Knutson (d. 1470), and described by the antiquary Peringskiöld in 1716. The affinity is so strong that the author does not hesitate to believe the Ängsö piece to be also an erstwhile possession of the King. The stamp of the beaker indicates that it was the work of the Lübeck goldsmith Burmester (1454–1505). It belongs to a group characterized by a flaring cylindrical form, a middle band or “girdle” with relief decoration, and a lid sometimes crowned with a statuette. The figure-style of its engraved designs seems allied to that of Herman Rode, chief artist of the time in Lübeck, while the plastic decoration is reminiscent of Bernt Notke. On the other beaker, reproduced in the plates, the Gothic aediculae inclosing Sibyls which support the Ängsö cup are replaced by “wild men,” but otherwise this is so close in style to “King Karl’s cup” that it, too, must have issued from a Lübeck workshop. This beaker of the Trolle family, now in the Douglas collection

at Castle Stjärnorp, Östergötland, was probably made by Hans Timmermann in Lübeck, since it is very near in style to a cup of his in the British Museum. The incised designs of this and other items of the series rest on German prints, some of them from the hand of Master E. S. and Schongauer.

PRINCETON UNIVERSITY

C. R. MOREY

THE GATES OF DREAMS, AN ARCHAEOLOGICAL EXAMINATION OF VERGIL, AENEID VI, 893–899, by Ernest Leslie Highbarger. *The Johns Hopkins Studies in Archaeology*, No. 30. Pp. 136 (including indices), pls. 7. Baltimore, The Johns Hopkins Press, 1940. \$3.00.

Dr. Highbarger’s first chapter would have made an admirable short article for the *American Journal of Philology*. It makes the interesting correction that the *porta cornea* of the *Aeneid* is the “gate of the horns” and not the “gate of horn.” The ambiguity of the Latin adjective has given rise to a misinterpretation, as the plural noun in the Greek authors makes clear (κεράσσι, κέρατων, κέρων). This is a useful reminder to be on our guard against other similar betrayals by our bilingual classical tradition.

Starting from the rich and ancient symbolism of the horns and from the complex mythological uses of gateways, the author wanders in the seven ensuing chapters through a learned maze of material from Egypt and the Orient, from the Aegean world, from Homer and the later Greeks. The conclusions are not always clear. The confusion in the underworld geography is if anything worse confounded by the plan in plate VII. Why was it necessary to enter by both gates if escape could be made through one? Though a whole chapter is devoted to the Myth of Er, no mention is made of its parallel to the exit from the world of the dead through the gate of dreams. Er and Aeneas both follow the time-honored route by which poets have brought home so many mortals from immortal realms:

“And I awoke and found me here  
On the cold hill’s side.”

On the choice of the gate of *false* dreams this reviewer finds nothing to add to Tenney Frank’s *Vergil*, pages 189 ff.

PHILADELPHIA

LOUISE ADAMS HOLLAND

# DRAMA AND THE OTHER ARTS

## A SYMPOSIUM

METROPOLITAN MUSEUM OF ART

82nd Street and 5th Avenue

January 25, 26, 27, 1943

Papers will be read in the Lecture Hall of the Museum

- |         |            |   |
|---------|------------|---|
| Jan. 25 | 11:00 A.M. | Drama, the Arts and Democracy . . . Allardyce Nicoll  |
|         | 11:45      | The Dramatic Arts and the Participant Crowd . . . . . George R. Kernodle  |
|         | 2:00 P.M.  | Dramatic Expression Among Modern Primitive Peoples . . . . . Melville H. Herskovits                                     |
|         | 2:50       | The 'Idealism' of Sophocles and Fifth Century Greek Sculpture . . . Whitney J. Oates                                    |
|         | 3:45       | Ecclesiastical Art and the Early Liturgical Theatre—Kinship with the Greek . . . . . William F. Lynch, S.J.             |
|         | 5:30       | A Performance by Angna Enters of "Pagan Greece." A Greek Mime of Twelve Characters                                      |
| Jan. 26 | 11:00 A.M. | The Influence of the Theatre on Mediaeval Art . . . . . Gustave Cohen   |
|         | 11:45      | The Italian Renaissance Theatre: A Synthesis of the Arts . . . . . Franz Rapp   |
|         | 2:00 P.M.  | The Relation of Dramatic Genre to the Arts of the Renaissance Theatre (to be read by the Chairman) . Lily Bess Campbell |
|         | 2:45       | The Formation of the Lyric Stage at the Confluence of Renaissance and Baroque . . . . . Paul Láng                       |
|         | 5:30       | A Performance of Monteverdi's "Il Combattimento di Tancredi e Clorinda"   |
| Jan. 27 | 11:00      | The Baroque Equation; Illusion and Reality . . . . . Peter Brieger  |
|         | 11:45      | David Garrick between Tragedy and Comedy . . . . . Edgar Wind   |
|         | 2:00 P.M.  | Title to be announced . . . . . George Heard Hamilton   |
|         | 2:45       | The Drama of the Future . . . . . Robert Edmond Jones   |
|         | 4:00       | Conclusion . . . . . William Allan Neilson  |

